

RECORD OF COMMUNICATION

REGIONAL SAMPLE CONTROL CENTER

ROC #10

231785



DATE: 1/31/2008
SUBJECT: CLP Data Package for Quality Assurance Review
FROM: Hazardous Waste Support Section (HWSS)/RSCC
TO: HWSS ESAT-TOPO

TDF# 08-0223

Attached is the following ORGANIC Data Package to be reviewed for Quality Assurance

SITE: Cornell Dubilier

CASE #: 37088

SDG#: B4QT1, B4QX1

SAMPLER: W-RST

PROJ. CODE: RS SITE SPILL #: GZ

#SAMPLES

MATRIX

LAB: SHEALY OPERABLE UNIT: 00

21

Soil

TURN-AROUND-TIME: 21 day

1

Water

CERCLIS ID #: NJD981557879

FRACTION:

PCBs

Contaminant(s) of Concern (If known)

REGION II RSCC DATA TRANSFER LOG

Michelle J. Peña 2/21/08 4:30 PM Relinquished By
Adey Michael 2/21/08 4:30 PM Received By

Signature

Date/Time

Signature

Date/Time

C. Stanno 2/6/08 9:10 AM

C. Stanno 2/6/08 9:10 am

C. Stanno 2/16/08

SDG # B4QX1
Vyomesh Purohit 02/16/08

SDG # B4QX1

Vyomesh Purohit 02/20/08

C. Stanno 2/21/08

X C. Stanno 2/21/08

SDG # B4QT1
R. J. Shelley 2/20/08

R. J. Shelley 2/21/08 SDG B4QT1

C. Stanno 2/21/08

C. Stanno 2/21/08 1:30 PM

SDG # B' All SDGs
R. J. Shelley 2/21/08

R. J. Shelley 2/21/08 1:30 PM

C. Stanno 2/21/08 1:30 PM

C. Stanno 2/21/08 1:30 PM

C. Stanno 2/21/08 1:30 PM

C. Stanno 2/21/08 1:30 PM

A. Ance 2/21/08

C. Stanno 2/21/08

Adey Michael 2/21/08 3:40 pm

Michelle J. Peña 2/21/08 3:40 pm

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QX1RE

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QX1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10012-001

Sample wt/vol: 15.6 (g/mL) g

Lab File ID: 021F2101

% Moisture: 46 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.8

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	59	U
11104-28-2	Aroclor-1221	59	U
11141-16-5	Aroclor-1232	59	U
53469-21-9	Aroclor-1242	59	U
12672-29-6	Aroclor-1248	59	U
11097-69-1	Aroclor-1254	410	PB J
11096-82-5	Aroclor-1260	59	U
37324-23-5	Aroclor-1262	59	U
11100-14-4	Aroclor-1268	59	U

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QX2RE

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QX1
Matrix: (SOIL/SED/WATER) Soil Lab Sample ID: JA10012-002
Sample wt/vol: 15.6 (g/mL) g Lab File ID: 022F2201
% Moisture: 61 Decanted: (Y/N) N Date Received: 01/10/2008
Extraction: (Type) PFEX Date Extracted: 01/18/2008
Concentrated Extract Volume: 5000.0 (uL) Date Analyzed: 01/24/2008
Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 6.2 Sulfur Cleanup: (Y/N) Y
Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	82	U
11104-28-2	Aroclor-1221	82	U
11141-16-5	Aroclor-1232	82	U
53469-21-9	Aroclor-1242	82	U
12672-29-6	Aroclor-1248	82	U
11097-69-1	Aroclor-1254	230	BB J
11096-82-5	Aroclor-1260	82	U
37324-23-5	Aroclor-1262	82	U
11100-14-4	Aroclor-1268	82	U

1H - FORM I ARO
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ABLK81

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: _____ SDG No.: B4QX1
Matrix: (SOIL/SED/WATER) Soil Lab Sample ID: JQ71681-001
Sample wt/vol: 15.0 (g/mL) g Lab File ID: 005F0501
% Moisture: 0.00 Decanted: (Y/N) _____ Date Received: _____
Extraction: (Type) PFEEX Date Extracted: 01/18/2008
Concentrated Extract Volume: 5000.0 (uL) Date Analyzed: 01/25/2008
Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 0.0 Sulfur Cleanup: (Y/N) Y
Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	(20)	J
11096-82-5	Aroclor-1260	33	U
37324-23-5	Aroclor-1262	33	U
11100-14-4	Aroclor-1268	33	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKJ1

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QX1
Matrix: (SOIL/SED/WATER) Water Lab Sample ID: JQ71985-018
Sample wt/vol: (g/mL) Lab File ID: 013F1301
% Moisture: Decanted: (Y/N) Date Received:
Extraction: (Type) Date Extracted:
Concentrated Extract Volume: (uL) Date Analyzed: 01/23/2008
Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N
Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKJ1

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
 Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: _____ SDG No.: B4QX1
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: JQ71985-018
 Sample wt/vol: _____ (g/mL) _____ Lab File ID: 013F1301
 % Moisture: _____ Decanted: (Y/N) _____ Date Received: _____
 Extraction: (Type) _____ Date Extracted: _____
 Concentrated Extract Volume: _____ (uL) Date Analyzed: 01/23/2008
 Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N
 Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKJ2

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QX1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ71985-018A

Sample wt/vol: _____ (g/mL) _____

Lab File ID: 054F5401

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) _____

Date Extracted: _____

Concentrated Extract Volume: _____ (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKJ2

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
 Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: _____ SDG No.: B4QX1
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: JQ71985-018A
 Sample wt/vol: _____ (g/mL) _____ Lab File ID: 054F5401
 % Moisture: _____ Decanted: (Y/N) _____ Date Received: _____
 Extraction: (Type) _____ Date Extracted: _____
 Concentrated Extract Volume: _____ (uL) Date Analyzed: 01/24/2008
 Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N
 Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKK1

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
 Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QX1
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: JQ72062-018
 Sample wt/vol: (g/mL) Lab File ID: 018F1801
 % Moisture: Decanted: (Y/N) Date Received:
 Extraction: (Type) Date Extracted:
 Concentrated Extract Volume: (uL) Date Analyzed: 01/24/2008
 Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N
 Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKK1

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QX1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ72062-018

Sample wt/vol: _____ (g/mL) _____

Lab File ID: 018F1801

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) _____

Date Extracted: _____

Concentrated Extract Volume: _____ (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKL1

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
 Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QX1
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: JQ72146-018
 Sample wt/vol: (g/mL) Lab File ID: 002F0201
 % Moisture: Decanted: (Y/N) Date Received:
 Extraction: (Type) Date Extracted:
 Concentrated Extract Volume: (uL) Date Analyzed: 01/25/2008
 Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N
 Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKL1

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: _____ SDG No.: B4QX1
Matrix: (SOIL/SED/WATER) Water Lab Sample ID: JQ72146-018
Sample wt/vol: _____ (g/mL) _____ Lab File ID: 002F0201
% Moisture: _____ Decanted: (Y/N) _____ Date Received: _____
Extraction: (Type) _____ Date Extracted: _____
Concentrated Extract Volume: _____ (uL) Date Analyzed: 01/25/2008
Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N
Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKL2

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QX1
Matrix: (SOIL/SED/WATER) Water Lab Sample ID: JQ72146-018A
Sample wt/vol: (g/mL) Lab File ID: 006F0601
% Moisture: Decanted: (Y/N) Date Received:
Extraction: (Type) Date Extracted:
Concentrated Extract Volume: (uL) Date Analyzed: 01/25/2008
Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N
Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKL2

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QX1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ72146-018A

Sample wt/vol: _____ (g/mL) _____

Lab File ID: 006F0601

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) _____

Date Extracted: _____

Concentrated Extract Volume: _____ (uL)

Date Analyzed: 01/25/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKK2

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
 Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: _____ SDG No.: B4QX1
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: JQ72062-018A
 Sample wt/vol: _____ (g/mL) _____ Lab File ID: 044F4401
 % Moisture: _____ Decanted: (Y/N) _____ Date Received: _____
 Extraction: (Type) _____ Date Extracted: _____
 Concentrated Extract Volume: _____ (uL) Date Analyzed: 01/25/2008
 Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N
 Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKK2

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
 Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QX1
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: JQ72062-018A
 Sample wt/vol: (g/mL) Lab File ID: 044F4401
 % Moisture: Decanted: (Y/N) Date Received:
 Extraction: (Type) Date Extracted:
 Concentrated Extract Volume: (uL) Date Analyzed: 01/25/2008
 Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N
 Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

1H - FORM I ARO
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ALCS81(1)

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QX1
Matrix: (SOIL/SED/WATER) Soil Lab Sample ID: JQ71681-002
Sample wt/vol: 15.0 (g/mL) g Lab File ID: 019F1901
% Moisture: 0.00 Decanted: (Y/N) N Date Received:
Extraction: (Type) PFEK Date Extracted: 01/18/2008
Concentrated Extract Volume: 5000.0 (uL) Date Analyzed: 01/23/2008
Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 0.0 Sulfur Cleanup: (Y/N) Y
Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	210	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	240	
37324-23-5	Aroclor-1262	33	U
11100-14-4	Aroclor-1268	33	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QT1

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JA10011-001

Sample wt/vol: 1000 (g/mL) mL

Lab File ID: 017F1701

% Moisture: _____ Decanted: (Y/N) _____

Date Received: 01/10/2008

Extraction: (Type) CONT

Date Extracted: 01/15/2008

Concentrated Extract Volume: 10000.0 (uL)

Date Analyzed: 01/23/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QT2RE

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-002

Sample wt/vol: 15.5 (g/mL) g

Lab File ID: 025F2501

% Moisture: 31 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/25/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.4

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	46	U
11104-28-2	Aroclor-1221	46	U
11141-16-5	Aroclor-1232	46	U
53469-21-9	Aroclor-1242	46	U
12672-29-6	Aroclor-1248	46	U
11097-69-1	Aroclor-1254	240	U J
11096-82-5	Aroclor-1260	46	U
37324-23-5	Aroclor-1262	46	U
11100-14-4	Aroclor-1268	46	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QT3RE

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-003

Sample wt/vol: 15.4 (g/mL) g

Lab File ID: 026F2601

% Moisture: 38 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/25/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.4

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	52	U
11104-28-2	Aroclor-1221	52	U
11141-16-5	Aroclor-1232	52	U
53469-21-9	Aroclor-1242	52	U
12672-29-6	Aroclor-1248	52	U
11097-69-1	Aroclor-1254	98	U <u>JN</u>
11096-82-5	Aroclor-1260	52	U
37324-23-5	Aroclor-1262	52	U
11100-14-4	Aroclor-1268	52	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

Do not use

EPA SAMPLE NO.

B4QT4

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-004

Sample wt/vol: 15.7 (g/mL) g

Lab File ID: 035F3501

% Moisture: 28 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.3

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	44	U
11104-28-2	Aroclor-1221	44	U
11141-16-5	Aroclor-1232	44	U
53469-21-9	Aroclor-1242	44	U
12672-29-6	Aroclor-1248	44	U
11097-69-1	Aroclor-1254	150	PS J
11096-82-5	Aroclor-1260	44	U
37324-23-5	Aroclor-1262	44	U
11100-14-4	Aroclor-1268	44	U

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QT4RE

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-004

Sample wt/vol: 15.7 (g/mL) g

Lab File ID: 027F2701

% Moisture: 28 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEF

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/25/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.3

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	44	U
11104-28-2	Aroclor-1221	44	U
11141-16-5	Aroclor-1232	44	U
53469-21-9	Aroclor-1242	44	U
12672-29-6	Aroclor-1248	44	U
11097-69-1	Aroclor-1254	150	U ✓
11096-82-5	Aroclor-1260	44	U
37324-23-5	Aroclor-1262	44	U
11100-14-4	Aroclor-1268	44	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QT5RE

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-005

Sample wt/vol: 15.2 (g/mL) g

Lab File ID: 028F2801

% Moisture: 44 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/25/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 6.1

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	58	U
11104-28-2	Aroclor-1221	58	U
11141-16-5	Aroclor-1232	58	U
53469-21-9	Aroclor-1242	58	U
12672-29-6	Aroclor-1248	58	U
11097-69-1	Aroclor-1254	240	<u>P</u> <u>J</u>
11096-82-5	Aroclor-1260	58	U
37324-23-5	Aroclor-1262	58	U
11100-14-4	Aroclor-1268	58	U

SOM01.2 (10/2006)

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QT6

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-006

Sample wt/vol: 15.0 (g/mL) g

Lab File ID: 037F3701

% Moisture: 54 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.5

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	71	U
11104-28-2	Aroclor-1221	71	U
11141-16-5	Aroclor-1232	71	U
53469-21-9	Aroclor-1242	71	U
12672-29-6	Aroclor-1248	71	U
11097-69-1	Aroclor-1254	2000 1900	EPS J *
11096-82-5	Aroclor-1260	71	U
37324-23-5	Aroclor-1262	71	U
11100-14-4	Aroclor-1268	71	U

* Reported from B4QT6PL

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QT7

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-007

Sample wt/vol: 15.7 (g/mL) g

Lab File ID: 038F3801

% Moisture: 32 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.3

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	46	U
11104-28-2	Aroclor-1221	46	U
11141-16-5	Aroclor-1232	46	U
53469-21-9	Aroclor-1242	46	U
12672-29-6	Aroclor-1248	46	U
11097-69-1	Aroclor-1254	650-640	PS J *
11096-82-5	Aroclor-1260	46	U
37324-23-5	Aroclor-1262	46	U
11100-14-4	Aroclor-1268	46	U

* Reported from B4QT7DL

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QT8RE

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-008

Sample wt/vol: 15.5 (g/mL) g

Lab File ID: 031F3101

% Moisture: 50 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEK

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/25/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.8

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	64	U
11104-28-2	Aroclor-1221	64	U
11141-16-5	Aroclor-1232	64	U
53469-21-9	Aroclor-1242	64	U
12672-29-6	Aroclor-1248	64	U
11097-69-1	Aroclor-1254	570	U
11096-82-5	Aroclor-1260	64	U
37324-23-5	Aroclor-1262	64	U
11100-14-4	Aroclor-1268	64	U

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QT9

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-009

Sample wt/vol: 15.2 (g/mL) g

Lab File ID: 040F4001

% Moisture: 42 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	56	U
11104-28-2	Aroclor-1221	56	U
11141-16-5	Aroclor-1232	56	U
53469-21-9	Aroclor-1242	56	U
12672-29-6	Aroclor-1248	56	U
11097-69-1	Aroclor-1254	1100 1700	U
11096-82-5	Aroclor-1260	56	U
37324-23-5	Aroclor-1262	56	U
11100-14-4	Aroclor-1268	56	U

* Reported from B4QT9 DL

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW0RE

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-010

Sample wt/vol: 15.6 (g/mL) g

Lab File ID: 033F3301

% Moisture: 41 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/25/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.1

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	54	U
11104-28-2	Aroclor-1221	54	U
11141-16-5	Aroclor-1232	54	U
53469-21-9	Aroclor-1242	54	U
12672-29-6	Aroclor-1248	54	U
11097-69-1	Aroclor-1254	310	U <u>NTN</u>
11096-82-5	Aroclor-1260	54	U
37324-23-5	Aroclor-1262	54	U
11100-14-4	Aroclor-1268	54	U

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW1RE

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-011

Sample wt/vol: 15.8 (g/mL) g

Lab File ID: 034F3401

% Moisture: 46 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEX

Date Extracted 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/25/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.1

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	57	U
11104-28-2	Aroclor-1221	57	U
11141-16-5	Aroclor-1232	57	U
53469-21-9	Aroclor-1242	57	U
12672-29-6	Aroclor-1248	57	U
11097-69-1	Aroclor-1254	200	J
11096-82-5	Aroclor-1260	57	U
37324-23-5	Aroclor-1262	57	U
11100-14-4	Aroclor-1268	57	U

1H - FORM I ARO
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW2RE

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QT1
Matrix: (SOIL/SED/WATER) Soil Lab Sample ID: JA10011-012
Sample wt/vol: 15.4 (g/mL) g Lab File ID: 035F3501
% Moisture: 50 Decanted: (Y/N) N Date Received: 01/10/2008
Extraction: (Type) PFEX Date Extracted: 01/18/2008
Concentrated Extract Volume: 5000.0 (uL) Date Analyzed: 01/25/2008
Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 6.3 Sulfur Cleanup: (Y/N) Y
Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	64	U
11104-28-2	Aroclor-1221	64	U
11141-16-5	Aroclor-1232	64	U
53469-21-9	Aroclor-1242	64	U
12672-29-6	Aroclor-1248	64	U
11097-69-1	Aroclor-1254	220	U J
11096-82-5	Aroclor-1260	64	U
37324-23-5	Aroclor-1262	64	U
11100-14-4	Aroclor-1268	64	U

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW3RE

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
 Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: _____ SDG No.: B4QT1
 Matrix: (SOIL/SED/WATER) Soil Lab Sample ID: JA10011-013
 Sample wt/vol: 15.2 (g/mL) g Lab File ID: 036F3601
 % Moisture: 47 Decanted: (Y/N) N Date Received: 01/10/2008
 Extraction: (Type) PFEX Date Extracted: 01/18/2008
 Concentrated Extract Volume: 5000.0 (uL) Date Analyzed: 01/25/2008
 Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 6.5 Sulfur Cleanup: (Y/N) Y
 Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	61	U
11104-28-2	Aroclor-1221	61	U
11141-16-5	Aroclor-1232	61	U
53469-21-9	Aroclor-1242	61	U
12672-29-6	Aroclor-1248	61	U
11097-69-1	Aroclor-1254	210	<u>PJ</u>
11096-82-5	Aroclor-1260	61	U
37324-23-5	Aroclor-1262	61	U
11100-14-4	Aroclor-1268	61	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW4RE

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QT1
Matrix: (SOIL/SED/WATER) Soil Lab Sample ID: JA10011-014
Sample wt/vol: 15.0 (g/mL) g Lab File ID: 037F3701
% Moisture: 44 Decanted: (Y/N) N Date Received: 01/10/2008
Extraction: (Type) PFEF Date Extracted: 01/18/2008
Concentrated Extract Volume: 5000.0 (uL) Date Analyzed: 01/25/2008
Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 6.6 Sulfur Cleanup: (Y/N) Y
Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	59	U
11104-28-2	Aroclor-1221	59	U
11141-16-5	Aroclor-1232	59	U
53469-21-9	Aroclor-1242	59	U
12672-29-6	Aroclor-1248	59	U
11097-69-1	Aroclor-1254	180	U J
11096-82-5	Aroclor-1260	59	U
37324-23-5	Aroclor-1262	59	U
11100-14-4	Aroclor-1268	59	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW5RE

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QT1
Matrix: (SOIL/SED/WATER) Soil Lab Sample ID: JA10011-015
Sample wt/vol: 15.5 (g/mL) g Lab File ID: 038F3801
% Moisture: 45 Decanted: (Y/N) N Date Received: 01/10/2008
Extraction: (Type) PFEEX Date Extracted: 01/18/2008
Concentrated Extract Volume: 5000.0 (uL) Date Analyzed: 01/25/2008
Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 6.3 Sulfur Cleanup: (Y/N) Y
Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	58	U
11104-28-2	Aroclor-1221	58	U
11141-16-5	Aroclor-1232	58	U
53469-21-9	Aroclor-1242	58	U
12672-29-6	Aroclor-1248	58	U
11097-69-1	Aroclor-1254	640	<u>Y</u>
11096-82-5	Aroclor-1260	58	U
37324-23-5	Aroclor-1262	58	U
11100-14-4	Aroclor-1268	58	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW6

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-016

Sample wt/vol: 15.4 (g/mL) g

Lab File ID: 049F4901

% Moisture: 49 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.6

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	63	U
11104-28-2	Aroclor-1221	63	U
11141-16-5	Aroclor-1232	63	U
53469-21-9	Aroclor-1242	63	U
12672-29-6	Aroclor-1248	63	U
11097-69-1	Aroclor-1254	3100 3300	EPS-J *
11096-82-5	Aroclor-1260	63	U
37324-23-5	Aroclor-1262	63	U
11100-14-4	Aroclor-1268	63	U

* Reported from B4W6 DL

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW6DL

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
 Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QT1
 Matrix: (SOIL/SED/WATER) Soil Lab Sample ID: JA10011-016
 Sample wt/vol: 15.4 (g/mL) g Lab File ID: 039F3901
 % Moisture: 49 Decanted: (Y/N) N Date Received: 01/10/2008
 Extraction: (Type) PFEEX Date Extracted: 01/18/2008
 Concentrated Extract Volume: 5000.0 (uL) Date Analyzed: 01/25/2008
 Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 5.0
 GPC Cleanup: (Y/N) N pH: 6.6 Sulfur Cleanup: (Y/N) Y
 Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	320	U
11104-28-2	Aroclor-1221	320	U
11141-16-5	Aroclor-1232	320	U
53469-21-9	Aroclor-1242	320	U
12672-29-6	Aroclor-1248	320	U
11097-69-1	Aroclor-1254	3100	DP J
11096-82-5	Aroclor-1260	320	U
37324-23-5	Aroclor-1262	320	U
11100-14-4	Aroclor-1268	320	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW7

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-017

Sample wt/vol: 15.8 (g/mL) g

Lab File ID: 050F5001

% Moisture: 34 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	48	U
11104-28-2	Aroclor-1221	48	U
11141-16-5	Aroclor-1232	48	U
53469-21-9	Aroclor-1242	48	U
12672-29-6	Aroclor-1248	48	U
11097-69-1	Aroclor-1254	920 1200	EPS-T *
11096-82-5	Aroclor-1260	48	U
37324-23-5	Aroclor-1262	48	U
11100-14-4	Aroclor-1268	48	U

* Reported from B4QW7DL

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW8

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-018

Sample wt/vol: 15.1 (g/mL) g

Lab File ID: 051F5101

% Moisture: 40 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEF

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.2

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	54	UJ
11104-28-2	Aroclor-1221	54	U
11141-16-5	Aroclor-1232	54	U
53469-21-9	Aroclor-1242	54	U
12672-29-6	Aroclor-1248	54	U
11097-69-1	Aroclor-1254	600 630	DS J *
11096-82-5	Aroclor-1260	54	UJ
37324-23-5	Aroclor-1262	54	U
11100-14-4	Aroclor-1268	54	U

* Reported from B4QW8DL

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW9DL RE

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-019

Sample wt/vol: 15.1 (g/mL) g

Lab File ID: 042F4201

% Moisture: 68 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/25/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.3

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	100	U
11104-28-2	Aroclor-1221	100	U
11141-16-5	Aroclor-1232	100	U
53469-21-9	Aroclor-1242	100	U
12672-29-6	Aroclor-1248	100	U
11097-69-1	Aroclor-1254	200	U J
11096-82-5	Aroclor-1260	100	U
37324-23-5	Aroclor-1262	100	U
11100-14-4	Aroclor-1268	100	U

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QX00K RE

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-020

Sample wt/vol: 15.8 (g/mL) g

Lab File ID: 043F4301

% Moisture: 57 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/25/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.2

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	72	U
11104-28-2	Aroclor-1221	72	U
11141-16-5	Aroclor-1232	72	U
53469-21-9	Aroclor-1242	72	U
12672-29-6	Aroclor-1248	72	U
11097-69-1	Aroclor-1254	250	U J
11096-82-5	Aroclor-1260	72	U
37324-23-5	Aroclor-1262	72	U
11100-14-4	Aroclor-1268	72	U

SOM01.2 (10/2006)

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ABLK15

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ71415-001

Sample wt/vol: 1000 (g/mL) mL

Lab File ID: 015F1501

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) CONT

Date Extracted: 01/15/2008

Concentrated Extract Volume: 10000.0 (uL)

Date Analyzed: 01/23/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ABLK05

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JQ71705-001

Sample wt/vol: 15.0 (g/mL) g

Lab File ID: 031F3101

% Moisture: 0.00 Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) PFEK

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U
37324-23-5	Aroclor-1262	33	U
11100-14-4	Aroclor-1268	33	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKJ1

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ71985-018

Sample wt/vol: _____ (g/mL)

Lab File ID: 013F1301

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) _____

Date Extracted: _____

Concentrated Extract Volume: _____ (uL)

Date Analyzed: 01/23/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKJ1

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ71985-018

Sample wt/vol: _____ (g/mL)

Lab File ID: 013F1301

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) _____

Date Extracted: _____

Concentrated Extract Volume: _____ (uL)

Date Analyzed: 01/23/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKJ2

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____

SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ71985-018A

Sample wt/vol: _____ (g/mL) _____

Lab File ID: 054F5401

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) _____

Date Extracted: _____

Concentrated Extract Volume: _____ (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKJ2

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ71985-018A

Sample wt/vol: _____ (g/mL) _____

Lab File ID: 054F5401

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) _____

Date Extracted: _____

Concentrated Extract Volume: _____ (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKK1

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
 Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QT1
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: JQ72062-018
 Sample wt/vol: (g/mL) Lab File ID: 018F1801
 % Moisture: Decanted: (Y/N) Date Received:
 Extraction: (Type) Date Extracted:
 Concentrated Extract Volume: (uL) Date Analyzed: 01/24/2008
 Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N
 Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKK1

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ72062-018

Sample wt/vol: _____ (g/mL)

Lab File ID: 018F1801

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) _____

Date Extracted: _____

Concentrated Extract Volume: _____ (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKK2

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ72062-018A

Sample wt/vol: _____ (g/mL) _____

Lab File ID: 044F4401

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) _____

Date Extracted: _____

Concentrated Extract Volume: _____ (uL)

Date Analyzed: 01/25/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKK2

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
 Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QT1
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: JQ72062-018A
 Sample wt/vol: (g/mL) Lab File ID: 044F4401
 % Moisture: Decanted: (Y/N) Date Received:
 Extraction: (Type) Date Extracted:
 Concentrated Extract Volume: (uL) Date Analyzed: 01/25/2008
 Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N
 Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKL3

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ72183-018

Sample wt/vol: _____ (g/mL) _____

Lab File ID: 002F0201

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) _____

Date Extracted: _____

Concentrated Extract Volume: _____ (uL)

Date Analyzed: 01/28/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) :ug/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKL3

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ72183-018

Sample wt/vol: _____ (g/mL) _____

Lab File ID: 002F0201

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) _____

Date Extracted: _____

Concentrated Extract Volume: _____ (uL)

Date Analyzed: 01/28/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01:2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKL4

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ72183-018A

Sample wt/vol: (g/mL)

Lab File ID: 008F0801

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (Type)

Date Extracted:

Concentrated Extract Volume: (uL)

Date Analyzed: 01/28/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

AIBLKL4

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ72183-018A

Sample wt/vol: _____ (g/mL) _____

Lab File ID: 008F0801

% Moisture: _____ Decanted: (Y/N) _____

Date Received: _____

Extraction: (Type) _____

Date Extracted: _____

Concentrated Extract Volume: _____ (uL)

Date Analyzed: 01/28/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW3MS(1)

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JA10011-013MS

Sample wt/vol: 15.1 (g/mL) g

Lab File ID: 045F4501

% Moisture: 47 Decanted: (Y/N) N

Date Received: 01/10/2008

Extraction: (Type) PFEX

Date Extracted 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/24/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.5

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	<u>210</u> 240	
11104-28-2	Aroclor-1221	61	U
11141-16-5	Aroclor-1232	61	U
53469-21-9	Aroclor-1242	61	U
12672-29-6	Aroclor-1248	61	U
11097-69-1	Aroclor-1254	250	PS <u>J</u>
11096-82-5	Aroclor-1260	330	PS <u>J</u>
37324-23-5	Aroclor-1262	61	U
11100-14-4	Aroclor-1268	61	U

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW3MS(2)

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: _____ SDG No.: B4QT1
Matrix: (SOIL/SED/WATER) Soil Lab Sample ID: JA10011-013MS
Sample wt/vol: 15.1 (g/mL) g Lab File ID: 045F4501
% Moisture: 47 Decanted: (Y/N) N Date Received: 01/10/2008
Extraction: (Type) PFEX Date Extracted: 01/18/2008
Concentrated Extract Volume: 5000.0 (uL) Date Analyzed: 01/24/2008
Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 6.5 Sulfur Cleanup: (Y/N) Y
Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	210	
11104-28-2	Aroclor-1221	61	U
11141-16-5	Aroclor-1232	61	U
53469-21-9	Aroclor-1242	61	U
12672-29-6	Aroclor-1248	61	U
11097-69-1	Aroclor-1254	410	PS
11096-82-5	Aroclor-1260	500	P
37324-23-5	Aroclor-1262	61	U
11100-14-4	Aroclor-1268	61	U

1H - FORM I ARO
AROCOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW3MSD(1)

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QT1
Matrix: (SOIL/SED/WATER) Soil Lab Sample ID: JA10011-013MD
Sample wt/vol: 15.1 (g/mL) g Lab File ID: 046F4601
% Moisture: 47 Decanted: (Y/N) N Date Received: 01/10/2008
Extraction: (Type) PFEX Date Extracted: 01/18/2008
Concentrated Extract Volume: 5000.0 (uL) Date Analyzed: 01/24/2008
Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 6.5 Sulfur Cleanup: (Y/N) Y
Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	<u>240</u> 250	
11104-28-2	Aroclor-1221	61	U
11141-16-5	Aroclor-1232	61	U
53469-21-9	Aroclor-1242	61	U
12672-29-6	Aroclor-1248	61	U
11097-69-1	Aroclor-1254	270	PS <u>4</u>
11096-82-5	Aroclor-1260	370	P <u>4</u>
37324-23-5	Aroclor-1262	61	U
11100-14-4	Aroclor-1268	61	U

SOM01.2 (10/2006)

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B4QW3MSD(2)

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
 Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QT1
 Matrix: (SOIL/SED/WATER) Soil Lab Sample ID: JA10011-013MD
 Sample wt/vol: 15.1 (g/mL) g Lab File ID: 046F4601
 % Moisture: 47 Decanted: (Y/N) N Date Received: 01/10/2008
 Extraction: (Type) PFEX Date Extracted: 01/18/2008
 Concentrated Extract Volume: 5000.0 (uL) Date Analyzed: 01/24/2008
 Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH: 6.5 Sulfur Cleanup: (Y/N) Y
 Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	240	
11104-28-2	Aroclor-1221	61	U
11141-16-5	Aroclor-1232	61	U
53469-21-9	Aroclor-1242	61	U
12672-29-6	Aroclor-1248	61	U
11097-69-1	Aroclor-1254	410	PS
11096-82-5	Aroclor-1260	580	P
37324-23-5	Aroclor-1262	61	U
11100-14-4	Aroclor-1268	61	U

1H - FORM I ARO
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ALCS15(1)

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: JQ71415-002

Sample wt/vol: 1000 (g/mL) mL

Lab File ID: 016F1601

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (Type) CONT

Date Extracted: 01/15/2008

Concentrated Extract Volume: 10000.0 (uL)

Date Analyzed: 01/23/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	7.9	
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	8.7	
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ALCS15(2)

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
 Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QT1
 Matrix: (SOIL/SED/WATER) Water Lab Sample ID: JQ71415-002
 Sample wt/vol: 1000 (g/mL) mL Lab File ID: 016F1601
 % Moisture: Decanted: (Y/N) Date Received: 01/15/2008
 Extraction: (Type) CONT Date Analyzed: 01/23/2008
 Concentrated Extract Volume: 10000.0 (uL) Dilution Factor: 1.0
 Injection Volume: 1.0 (uL) GPC Factor: 1.0 Sulfur Cleanup: (Y/N) Y
 GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y
 Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/L</u>	Q
12674-11-2	Aroclor-1016	8.8	
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	9.1	
37324-23-5	Aroclor-1262	1.0	U
11100-14-4	Aroclor-1268	1.0	U

SOM01.2 (10/2006)

1H - FORM I ARO
AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ALCS05(1)

Lab Name: Shealy Environmental Services, Inc. Contract: EP-W-05-031
Lab Code: SHEALY Case No.: 37088 Mod. Ref No.: SDG No.: B4QT1
Matrix: (SOIL/SED/WATER) Soil Lab Sample ID: JQ71705-002
Sample wt/vol: 15.0 (g/mL) g Lab File ID: 006F0601
% Moisture: 0.00 Decanted: (Y/N) N Date Received:
Extraction: (Type) PFEX Date Extracted: 01/18/2008
Concentrated Extract Volume: 5000.0 (uL) Date Analyzed: 01/28/2008
Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 0.0 Sulfur Cleanup: (Y/N) Y
Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	170	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	220 230	
37324-23-5	Aroclor-1262	33	U
11100-14-4	Aroclor-1268	33	U

SOM01.2 (10/2006)

1H - FORM I ARO
 AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ALCS05(2)

Lab Name: Shealy Environmental Services, Inc.

Contract: EP-W-05-031

Lab Code: SHEALY Case No.: 37088

Mod. Ref No.: _____ SDG No.: B4QT1

Matrix: (SOIL/SED/WATER) Soil

Lab Sample ID: JQ71705-002

Sample wt/vol: 15.0 (g/mL) g

Lab File ID: 006F0601

% Moisture: 0.00 Decanted: (Y/N) N

Date Received: _____

Extraction: (Type) PFEX

Date Extracted: 01/18/2008

Concentrated Extract Volume: 5000.0 (uL)

Date Analyzed: 01/28/2008

Injection Volume: 1.0 (uL) GPC Factor: 1.0

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Sulfur Cleanup: (Y/N) Y

Acid Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	180	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	220	
37324-23-5	Aroclor-1262	33	U
11100-14-4	Aroclor-1268	33	U

Functional Guidelines for Evaluating Organic Analysis

CASE No.: 37088
LABORATORY: Shealy Environmental
SAMPLER: W-RST

SDG No.: B4QT1
SITE: Cornell Dubilier
ANALYSIS: PCB

DATA ASSESSMENT

The current SOP HW-37 (Revision 1) August 2007, USEPA Region II Data Validation SOP for Statement of Work SOM01.2 for evaluating organic data have been applied.

All data are valid and acceptable except those analytes rejected "R"(unusable). Due to the detection of QC problems, some analytes may have the "J" (estimated), "N"(presumptive evidence for the presence of the material), "U" (non-detect) or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All action is detailed on the attached sheets.

The "R" flag means that the associated value is unusable. In other words, significant data bias is evident and the reported analyte concentration is unreliable.

Reviewer's
Signature:

R. J. Shelley
Raxa J Shelley

Date: February/21/2008

Peer Reviewer's
Signature:

Robert Baker

Date: Feb 17 / 2008

Verified By:

R. R. Rance

Date: 2 / 21 / 2008

SDG# B4QT1

1. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

The following action was taken in the samples and analytes shown due to excessive holding time.

No problems found for this qualification.

2. SURROGATES

All samples are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured surrogate concentrations were outside contract specifications, qualifications were applied to the samples and analytes as shown below.

The following aroclor samples have surrogate percent recoveries less than 30% but greater than 10%. Detected compounds are qualified J. Non-detected compounds are qualified UJ.

Decachlorobiphenyl B4QT1, B4QW2, B4QW8

Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268

3. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

The following Aroclor matrix/matrix spike duplicate samples have percent recoveries that are greater than the upper acceptance limit. Detected compounds are qualified J. Non-detected compounds are not qualified.

Aroclor-1260 B4QW3MS, B4QW3MSD, B4QW3, B4QW3RE

4. Laboratory Control Samples (LCS):

The LCSs data provides information on the accuracy of the analytical method and laboratory performance. If LCS recoveries fell outside of the acceptable limits, qualifications were applied to the associated samples and compounds as shown below.

No problems found for this qualification.

5. BLANK CONTAMINATION:

Quality assurance (QA) blanks, i.e., method, field, or rinse blanks are prepared to identify any contamination, which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples during field operations. Depending on the concentration of the analyte in the blank, the analytes are qualified as non-detects U.

The following analytes in the sample shown were qualified with "U" for these reasons:

- A) **Method blank contamination:**
No problems found for this qualification.
- B) **Field or rinse blank contamination:**
No problems found for this qualification.

6. CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

- A) **Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):**

For the PCB fraction, if %RSD exceeds 20% for all analytes and the two surrogates, qualify all associated positive results "J" and non-detects "UJ".

For opening CCV, or closing CCV that is used as an opening CCV for the next 12-hour period, if %D exceeds 15% for analytes and the two surrogates, qualify all associated positive results "J" and non-detects "UJ".

For closing CCV, if %D exceeds 50% for all analytes and the two surrogates, qualify all associated positive results "J" and non-detects "UJ".

The following aroclor samples are associated with an opening CCV with % Difference exceeding criteria. Detected compounds are qualified J. Non-detected compounds are qualified UJ.

Aroclor-1254

B4QT2RE, B4QT3RE, B4QT4RE, B4QT5RE, B4QT6DL, B4QT7DL, B4QT8RE, B4QT9DL,
B4QW0RE, B4QW1RE, B4QW2RE, B4QW3RE, B4QW4RE, B4QW5RE, B4QW6DL, B4QW7DL,
B4QW8DL, B4QW9DL, B4QX0DL

The following aroclor samples are associated with an opening and a closing CCV that are not analyzed at the correct frequency. Detected compounds are qualified J. Non-detected compounds are not qualified.

Aroclor-1254

B4QT1, B4QT2, B4QT3, B4QT4, B4QT5, B4QT6, B4QT7, B4QT8, B4QT9, B4QW0, B4QW1, B4QW2, B4QW3, B4QW4, B4QW5, B4QW6, B4QW7, B4QW8, B4QW9, B4QX0

7. COMPOUND IDENTIFICATION:

A) PCB Fraction:

The retention times of reported compounds must fall within the calculated retention time windows for the two chromatographic columns and a GC/MS confirmation is required if the concentration exceeds 10ng/ml in the final sample extract.

The following aroclor samples have percent differences between analyte results in the range of 26-70%. Detected compounds are qualified J.

Aroclor-1260 B4QW3MS, B4QW3MSD

Aroclor-1254 B4QT2RE, B4QT4, B4QT4RE, B4QT5, B4QT5RE, B4QT6, B4QT6DL, B4QT7, B4QT7DL, B4QT8RE, B4QT9DL, B4QW2, B4QW2RE, B4QW3, B4QW3MS, B4QW3MSD, B4QW3RE, B4QW4, B4QW4RE, B4QW5RE, B4QW6, B4QW6DL, B4QW7DL, B4QW8DL, B4QW9, B4QW9DL, B4QX0, B4QX0DL

The following aroclor samples have percent differences between analyte results in the range of 71-100%. Detected compounds are qualified J or JN. Non-detected compounds are not qualified.

QUALIFIED J:

Aroclor-1254 B4QT8

QUALIFIED JN:

Aroclor-1254 B4QW0, B4QW0RE

The following aroclor samples have percent differences between analyte results in the range of 101-200%. Detected compounds are qualified J or JN. Non-detected compounds are not qualified.

QUALIFIED J:

Aroclor-1254 B4QT9, B4QW5, B4QW7, B4QW8

QUALIFIED JN:

Aroclor-1254 B4QT3

The following aroclor samples have percent differences between analyte results exceeding 200%. Detected compounds are qualified JN. Non-detected compounds are not qualified.

Aroclor-1254 B4QT3RE

8. CONTRACT PROBLEMS NON-COMPLIANCE:

B4QT1: Surrogate recovery did not meet recovery criteria. Re-analysis was not performed for this sample.

9. FIELD DOCUMENTATION:

No problems.

10. OTHER PROBLEMS:

None.

11. This package contains reextractions, reanalyses or dilutions. Upon reviewing the QA results, the following Form 1(s) are identified NOT to be used.

B4QT2, B4QT3, B4QT4, B4QT5, B4QT6DL, B4QT7DL, B4QT8, B4QT9DL, B4QW0, B4QW1, B4QW2, B4QW3, B4QW4, B4QW5, B4QW6DL, B4QW7DL, B4QW8DL, B4QW9, B4QX0

Functional Guidelines for Evaluating Organic Analysis

CASE No.:37088
LABORATORY: SHEALY
SAMPLER: W-RST

SDG No.: B4QX1
SITE: Cornell Dubilier
ANALYSIS: PCB

DATA ASSESSMENT

The current SOP HW-37 (Revision 1) August 2007, USEPA Region II Data Validation SOP for Statement of Work SOM01.2 for evaluating organic data have been applied.

All data are valid and acceptable except those analytes rejected "R"(unusable). Due to the detection of QC problems, some analytes may have the "J" (estimated), "N"(presumptive evidence for the presence of the material), "U" (non-detect) or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All action is detailed on the attached sheets.

The "R" flag means that the associated value is unusable. In other words, significant data bias is evident and the reported analyte concentration is unreliable.

Reviewer's
Signature:

Vyomesh Parekh
Vyomesh Parekh

Date: February /21 /2008

Peer Reviewer's
Signature:

Rudolf Baker

Date: Feb 1 21 /2008

Verified By:

R. Dey

Date: 2 1 21 /2008

SDG# B4QX1

1. **HOLDING TIME:**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

No problems found for this qualification.

2. **SURROGATES**

All samples are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured surrogate concentrations were outside contract specifications, qualifications were applied to the samples and analytes as shown below.

No problems found for this qualification.

3. **MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:**

Not applicable.

4. **Laboratory Control Samples (LCS):**

The LCSs data provides information on the accuracy of the analytical method and laboratory performance. If LCS recoveries fell outside of the acceptable limits, qualifications were applied to the associated samples and compounds as shown below.

No problems found for this qualification.

5. **BLANK CONTAMINATION:**

Quality assurance (QA) blanks, i.e., method, field, or rinse blanks are prepared to identify any contamination, which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples during field operations. Depending on the concentration of the analyte in the blank, the analytes are qualified as non-detects U.

The following analytes in the sample shown were qualified with "U" for these reasons:

A) **Method blank contamination:**

No additional qualification required due to method blank contamination.

ATTACHMENT 1
SOM01.2/Aroclors
SOP NO. HW-37

B) Field or rinse blank contamination:

No problems found for this qualification.

6. CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):

For the PCB fraction, if %RSD exceeds 20% for all analytes and the two surrogates, qualify all associated positive results "J" and non-detects "UJ".

For opening CCV, or closing CCV that is used as an opening CCV for the next 12-hour period, if %D exceeds 15% for analytes and the two surrogates, qualify all associated positive results "J" and non-detects "UJ".

For closing CCV, if %D exceeds 50% for all analytes and the two surrogates, qualify all associated positive results "J" and non-detects "UJ".

The following aroclor samples are associated with an opening or closing CCV with % Difference exceeding criteria. Detected compounds are qualified J. Nondetected compounds are qualified UJ.

Aroclor-1254

B4QX1RE, B4QX2RE.

The following aroclor samples are associated with an opening and a closing CCV that are not analyzed at the correct frequency. Detected compounds are qualified J. Non-detected compounds are not qualified.

Aroclor-1254

B4QX1, B4QX2

7. COMPOUND IDENTIFICATION:

A) PCB Fraction:

The retention times of reported compounds must fall within the calculated retention time windows for the two chromatographic columns and a GC/MS confirmation is required if the concentration exceeds 10ng/ml in the final sample extract.

The following aroclor samples have percent differences between analyte results in the range of 26-70%. Detected compounds are qualified J. Nondetected compounds are not qualified.

Aroclor-1254 B4QX1, B4QX1RE, B4QX2RE

The following aroclor samples have percent differences between analyte results in the range of 71-100%. Detected compounds are qualified J. Nondetected compounds are not qualified.

Aroclor-1254 B4QX2

8. **CONTRACT PROBLEMS NON-COMPLIANCE:**

None.

9. **FIELD DOCUMENTATION:**

10. **OTHER PROBLEMS:**

None.

11. **This package contains re-extracted, re-analyzed or dilution runs. Upon reviewing the QA results, the following Form 1(s) are identified NOT to be used.**

B4QX1, B4QX2

SOP HW-37
Revision 1
August 2007

SOP NO. HW-37/Aroclor
Validation of Data
USEPA Contract Laboratory Program
Statement of Work for Organic Analysis of Low/Medium
Concentration of Aroclor Organic Compounds SOM01.2



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Date: 8/13/07

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Date: 10/9/07

Approved by: Robert Runyon
Robert Runyon, Chief
Hazardous Waste Support Branch

Date: 10/10/07

Reviewed by: _____
Annual Review
Name

Date: _____

Reviewed by: _____
Name

Date: _____

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INTRODUCTION

Scope and Applicability

This SOP offers detailed guidance in evaluating laboratory data generated according to the method in the "USEPA Contract Laboratory Program Statement of Work for Organics Analysis Multi-Media, Multi-Concentration, SOM01.2, February 2007". The validation procedures and actions discussed in this document are based on the requirements set forth in the "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, July 2007". This document attempts to cover technical problems specific to low/Medium concentration of Aroclor compounds. Situations may arise where data limitations must be assessed based on the reviewer's own professional judgement.

In addition to technical requirements, contractual requirements may also be covered in this document. While it is important that instances of contract non-compliance be addressed in the Data Assessment, the technical criteria are always used to qualify the analytical data.

Summary

To ensure a thorough evaluation of each result in a data case, the reviewer must complete the checklist within this SOP, answering specific questions while performing the prescribed "ACTIONS" in each section. Qualifiers (or flags) are applied to questionable or unusable results as instructed. The data qualifiers discussed in this document are as follows:

Data Qualifiers

- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- JN - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

- UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Lab Qualifiers:

- D - The positive value is the result of an analysis at a secondary dilution factor.
- B - The analyte is present in the associated method blank as well as in the sample. This qualifier has a different meaning when validating inorganic data.
- E - The concentration of this analyte exceeds the calibration range of the instrument.
- P - Pesticide/Aroclor target analytes when the % Difference between the analyte concentrations obtained from the two dissimilar GC columns is greater than 25%.

The reviewer must prepare a detailed data assessment to be submitted along with the completed SOP checklist. The Data Assessment must list all data qualifications, reasons for qualifications, instances of missing data and contract non-compliance.

Reviewer Qualifications:

Data reviewers must possess a working knowledge of the USEPA Statement of Work SOM01.2 and National Functional Guidelines mentioned above.

STANDARD OPERATING PROCEDURE

USEPA Region II

Method: CLP/SOW, SOM01.2/Aroclor

Date: August 2007

SOP HW-37/Aroclor, Revision 1

YES NO N/A

PACKAGE COMPLETENESS AND DELIVERABLES

CASE NUMBER: 87088 LAB: Ohealy Environmental

SITE NAME: Cornell Dubilier SDG No(s): B4QT1

1.0 Chain of Custody and Sampling Trip Reports

- 1.1 Are the Traffic Reports/Chain-of-Custody Records present for all samples? ☒

ACTION: If no, contact RSCC, or the TOPO to obtain replacement of missing or illegible copies from the lab.

- 1.2 Is the Sampling Trip Report present for all samples? ☒

ACTION: If no, contact either RSCC or ask the TOPO to obtain the necessary information from the prime contractor.

2.0 Data Completeness and Deliverables

- 2.1 Have any missing deliverables been received and added to the data package? ☒

ACTION: Contact the TOPO to obtain an explanation or resubmittal of any missing deliverables from the lab. If lab cannot provide them, note the effect on the review of the data package in the Contract Problems/Non-compliance section of the Data Assessment.

- 2.2 Was SMO/CLASS CCS checklist included with the package? ☒

STANDARD OPERATING PROCEDURE

USEPA Region II
Method: CLP/SOW, SOM01.2/Aroclor

Date: August 2007
SOP HW-37/Aroclor, Revision 1

YES NO N/A

- 2.3 Are there any discrepancies between the Traffic Reports/Chain-of-Custody Records, and Sampling Trip Report? *✓*

ACTION: If yes, contact the TOPO to obtain an explanation or resubmittal of any missing deliverables from the laboratory.

3.0 Cover Letter SDG Narrative

- 3.1 Is the SDG Narrative or Cover Letter Present? *✓*

- 3.2 Are case number, SDG number and contract number contained in the SDG Narrative or cover letter (see SOW, Exhibit B, section 2.5.1)?
EPA sample numbers in the SDG, detailed documentation of any quality control, sample, shipment, and/or analytical problems encountered in processing the samples? Corrective action taken? *✓*

- 3.3 Does the Narrative contain the following information SOM01.1, page B-12, section 2.5.1)?
column used, storage of samples, case#, SDG#, analytical problems, and discrepancies between field and lab weights. *✓*

- 3.5 Did the contractor record the temperature of the cooler on the Form DC-1, Item 9 - Cooler Temperature, and in the SDG Narrative? *✓*

- 3.6 Does the Case Narrative contain the "verbatim" statement (page B-12, section 2.5.1 of the SOM)? *✓*

ACTION: If "No", to any question in this section, contact the TOPO to obtain necessary resubmittals. If unavailable, document under the Contract Problems/Non-Compliance section of the Data Assessment.

STANDARD OPERATING PROCEDURE

USEPA Region II

Method: CLP/SOW, SOM01.2/Aroclor

Date: August 2007

SOP HW-37/Aroclor, Revision 1

YES NO N/A

4.0 Data Validation Checklist

4.1 Check the package for the following (see SOM reporting requirements, section 2.1, page B-10):

a. Is the package paginated in ascending order starting from the SDG narrative?

☒ ☐ ☐

b. Are all forms and copies legible?

☒ ☐ ☐

c. Assembled in the order set forth in the SOW?

☒ ☐ ☐

d. All Aroclor Data present?

☒ ☐ ☐

PART A: Low/Medium Aroclor Analyses

1.0 Sample Conditions/Problems

1.1 Do the Traffic Reports/Chain-of-Custody Records, Sampling Trip Report or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?

☐ ☒ ☐

ACTION: If samples were not iced or the ice was melted upon arrival at the laboratory and the temperature of the cooler was $> 10^{\circ}\text{C}$, then flag all positive results with a "J" and all non-detects "UJ".

2.0 Holding Times

2.1 Have any Aroclor technical holding times, determined from date of collection to date of analysis, been exceeded?

☐ ☒ ☐

2.2 Preservation: Aqueous and Non-aqueous samples must be cooled at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$.

STANDARD OPERATING PROCEDURE

USEPA Region II
Method: CLP/SOW, SOM01.2/Aroclor

Date: August 2007
SOP HW-37/Aroclor, Revision 1

YES NO N/A

ACTION: Qualify sample results according to the following table.

Holding Time Actions for Low/Medium Aroclor Analyses

Matrix	Preserved	Criteria	Action	
			Detected Associated Compounds	Non-Detected Associated Compounds
Aqueous	No	≤ 7 days (extraction) < 40 days (analysis)	J*	UJ*
	No	> 7 days (extraction) > 40 days (analysis)	J	UJ
	Yes	≤ 7 days (extraction) ≤ 40 days (analysis)	No qualification	
	Yes	> 7 days (extraction) > 40 days (analysis)	J	UJ
	Yes/No	> 28 Days (extraction)	J	R
Non-aqueous	No	≤ 14 days (extraction) ≤ 40 days (analysis)	J*	UJ*
	No	> 14 days (extraction) > 40 days (analysis)	J	UJ
	Yes	≤ 14 days (extraction) ≤ 40 days (analysis)	No qualification	
	Yes	> 14 days (extraction) > 40 days (analysis)	J	UJ
	Yes/No	> 28 Days (extraction)	J	R

* Only if cooler temperature exceeds 10°C (see ACTION in Section 1.1 above).
No action required if temperature $\leq 10^\circ\text{C}$.

3.0 Surrogate Recovery (Form II ARO-1, Form II ARO-2, Form VIII ARO)

3.1 Are the Aroclor Recovery Summary Forms present?

☒ — —

ACTION: Contact the TOPO to obtain an explanation/resubmittal from the lab. If missing deliverables are unavailable, document the effect in the Data Assessment.

STANDARD OPERATING PROCEDURE

USEPA Region II
Method: CLP/SOW, SOM01.2/Aroclor

Date: August 2007
SOP HW-37/Aroclor, Revision 1

YES NO N/A

- 3.2 Were the two surrogates, tetrachloro-m-xylene (TCX) and decachlorobiphenyl (DCB) added to all samples, MS/MSD, LCS, blanks including standards?

☒ ☐ ☐

ACTION: If no, use professional judgment in qualifying data as missing surrogate analyte may not directly apply to target analytes.

- 3.3 Were outliers marked with an asterisk on Form II?

☒ ☐ ☐

ACTION: Circle all outliers with a red pencil.

- If yes, were effected samples re-analyzed?
- * Sample B 4011 Was not re-analyzed
- 3.4 The RTs of the surrogates in each mid-point Aroclor standards used for continuing calibration verification, all samples, including MS/MSD, LCS and all blanks must be within the calculated RT window. TCX must be within ± 0.05 minutes and DCB must be within ± 0.10 minutes of the mean retention time (RT) determined from the initial calibration and tabulated in Form VIII Pest.

☒ ☐ ☐

Were any outliers marked with an asterisk on Form VIII ARO?

☐ ☒ ☒

ACTION: Circle all outliers with a red pencil. If any Surrogate is outside the required limits, qualify their associated target compounds (See Table below) as follows:

Surrogate Compound Recovery Action for Aroclors

Criteria	Action	
	Detected Target Compounds	Non-Detected Target Compounds
%R > 200%	J	No qualification
150% < %R ≤ 200%	J	No qualification
30% ≤ %R ≤ 150%	No qualification	
10% ≤ %R < 30%	J	UJ
%R < 10% (sample dilution not a factor)	J	R
%R < 10% (sample dilution is a factor)	J	Use Professional Judgement
RT out of RT window	Use professional judgment	
RT within RT window	No qualification	

STANDARD OPERATING PROCEDURE

USEPA Region II
Method: CLP/SOW, SOM01.2/Aroclor

Date: August 2007
SOP HW-37/Aroclor, Revision 1

YES NO N/A

Note: Blank analysis having surrogates out of specification:

The reviewer must give special consideration to the validity of associated samples. Basic concern is whether the blank problems represent an isolated problem with the blank alone or whether there is a fundamental problem with the analytical process. For example, if one or more samples in the batch show acceptable surrogate recoveries, the reviewer may choose to consider the blank problem to be an isolated occurrence.

ACTION: Note in the Data Assessment under Contract Problems/Non-Compliance if the Lab did not perform reanalysis and reviewer's judgment regarding blank problem.

3.5 Are there any transcription/calculation errors between raw data and Form IIs? ✓

ACTION: If large errors exist, ask the TOPO to obtain an explanation/resubmittal from the lab, make any necessary corrections and note errors in the data assessment.

4.0 Matrix Spike/Matrix Spike Duplicate Recovery (Form III)

Note: Data for MS/MSD will not be present unless requested.

4.1 Are the MS/MSD Recovery Forms (Form III ARO) present? ✓

4.2 Was the MS/MSD analyzed at the required frequency (once per SDG, or every 20 samples, whichever is more frequent)? ✓

ACTION: If any MS/MSD data are missing, take action as specified in section 3.1 above.

ACTION: No action is taken on MS/MSD data alone. However, using professional judgement, the validator may use the MS and MSD results in conjunction with other QC criteria and determine the need for some qualification of the data. If Any MS/MSD % recovery or RPD is out of specification, qualify data to include the consideration of the existence of interference in the raw data. Consideration include, but not limited to the following "Action":

Matrix Spike/Matrix Spike Duplicate Action for Aroclor

Criteria	Action	
	Detected Spike Compounds	Non-detected Spike Compounds
%R or RPD > Upper Acceptance Limit	J	No qualification
20% ≤ %R < Lower Acceptance Limit	J	UJ

STANDARD OPERATING PROCEDURE

USEPA Region II
Method: CLP/SOW, SOM01.2/Aroclor

Date: August 2007
SOP HW-37/Aroclor, Revision 1

YES NO N/A

%R < 20%	J	Use professional judgement
Lower Acceptance Limit \leq %R; RPD \leq Upper Acceptance Limit	No qualification	

Note: If it can be determined that the results of the MS/MSD affects only the sample spiked, limit qualification to only this sample. However, use professional judgment when it is determined through the MS/MSD results that the laboratory is having systematic problem in the analysis of one or more analytes that affect all associated samples.

5.0 Blanks (Form IV)

5.1 Is the Aroclor Method Blank Summary (Form IV ARO) present for aqueous and soil samples?

☒ ☐ ☐

5.2 Frequency of Analysis: For the analysis of AROCLOR, has a method blank been analyzed for each SDG or every 20 samples, whichever is more frequent?

☒ ☐ ☐

ACTION: If any blank data are missing, take action as specified above in section 3.1. If blank data is not available, reject "R" all associated positive data. However, using professional judgement, the data reviewer may substitute field blank data for missing method blank data.

5.3 A separate Form IV should be present if part of an extraction batch required sulfur removal. In such cases some samples will be listed on two blank summary forms - once under the method blank, and once under the sulfur clean-up blank (PCBLK). Was this additional blank raw data and Form IV submitted when required?

☐ ☐ ☒

ACTION: If Form IV sulfur clean-up blank is missing, take action as specified in section 3.1 above.

5.4 Has a Aroclor instrument blank been analyzed at the beginning of every 12 hr. period following the initial calibration sequence (minimum contract requirement)?

☒ ☐ ☐

ACTION: If any blank data are missing, take action specified in Section 3.1.

5.5 Was the correct identification scheme used for all Aroclor blanks? (See page B-39, section 3.3.7.3 of SOM01.1 for further information)

☒ ☐ ☐

ACTION: Contact the TOPO to obtain resubmittals or make the required corrections on the forms.

STANDARD OPERATING PROCEDURE

USEPA Region II

Method: CLP/SOW, SOM01.2/Aroclor

Date: August 2007

SOP HW-37/Aroclor, Revision 1

YES NO N/A

Document in the Data Assessment under Contract Problems/Non-Compliance all corrections made by the validator.

- 5.6 Chromatography: Review the blank raw data chromatogram, quant. Reports and data system printout. Is the chromatographic performance (baseline stability) acceptable for each instrument?

☒ ☐ ☐

ACTION: Use professional judgement to determine the effect on the data.

- 5.7 Are all detected hits for target compounds in method, and field blanks less than the CRQL?

☐ ☐ ☒

ACTION: IF no, an explanation and laboratory's corrective actions must be addressed in the case SDG narrative. Contact TOPO to request from Lab. revised narrative and make a note in the Contract Problems/Non-Compliance section of the Data Assessment.

6.0 Contamination

NOTE: "Water blanks", "drill blanks", and distilled water blanks" are validated like any other sample, and are not used to qualify data. Do not confuse them with the other QC blanks discussed below.

- 6.1 Do any method/reagent or cleanup blanks contain positive hits for target Aroclor compounds with values greater than the CRQL for that analyte?

☐ ☒ ☐

Note: The concentration of each target compound in the instrument blank must be less than the CRQL for that analyte.

ACTION: Make note in data assessment under Contract Problems/Non-Compliance if any blank contains hit above the CRQLs.

- 6.2 Do any instrument blanks contain positive Aroclor results with values greater than CRQLs?

☐ ☒ ☐

ACTION: Take the action specified in section 6.1.

- 6.3 Do any field/rinse blanks have positive Aroclor results?

☐ ☒ ☐

NOTE: All field blank results associated with a particular group of samples (may exceed one per case) must be used to qualify data. Blanks may not be qualified because of contamination in another blank. Field blanks must be qualified for system monitoring compound, instrument performance criteria, spectral or calibration QC problems.

ACTION: Follow the directions in the table below to qualify results due to contamination. Use the largest value from all the associated

STANDARD OPERATING PROCEDURE

USEPA Region II
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YES NO N/A

blanks. If any blanks are grossly contaminated, all associated sample data should be qualified unusable (R).

Blank Action for Aroclor Analyses

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Field, Sulfur Cleanup, Instrument	Detects	Not detected	No qualification required
	< CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL	No qualification required
	= CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL	No qualification required
	> CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL and < blank contamination	Report concentration of sample with a U
		≥ CRQL and ≥ blank contamination	No qualification required
	Gross contamination	Detects	Qualify results as unusable R

NOTE: Analytes qualified "U" for blank contamination are treated as "hits" when qualifying for calibration criteria.

Note: When applied as described in the table above, the contaminant concentration in the blank are multiplied by the sample dilution factor.

6.4 Are there field/rinse/equipment blanks associated with every sample? ☒ — —

ACTION: Note in data assessment if there's no associated field/rinse/equipment blank.

Exception: samples taken from a drinking water tap do not have associated field blanks.

7.0 Aroclor Initial and Continuing Calibration

7.1 Are the following Forms, chromatograms and data system printouts present?

a.) Form VI ARO-1/Aroclor Initial Calibration (Multipoint) ☒ — —

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YES NO N/A

b.) Form VI ARO-2/Aroclor Initial Calibration (Multipoint)

☒

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—

c.) Form VI ARO-3/Aroclor Initial Calibration (Singlepoint)

☒

—

—

d.) Form VII ARO/Aroclor Calibration Verification

☒

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—

e.) Form VIII ARO/Aroclor Analytical Sequence

☒

—

—

f.) Form X ARO/Identification Summary for Multicomponent Analysis

☒

—

—

7.2 Initial Calibration

7.2.1 Was the following contract required initial calibration sequence provided by the laboratory?

☒

—

—

Initial Calibration Sequence	
1.	Aroclor 1221 CS3 (400ng/ml)
2.	Aroclor 1232 CS3 (400 ng/ml)
3.	Aroclor 1242 CS3 (400 ng/ml)
4.	Aroclor 1248 CS3 (400 ng/ml)
5.	Aroclor 1254 CS3 (400 ng/ml)
6.	Aroclor 1262 CS3 (400 ng/ml)
7.	Aroclor 1268 CS3 (400 ng/ml)
8.	Aroclor1016/1260 (100 ng/ml) CS1
9.	Aroclor1016/1260 (200 ng/ml) CS1
10.	Aroclor1016/1260 (400 ng/ml) CS1
11.	Aroclor1016/1260 (800 ng/ml) CS1
12.	Aroclor1016/1260 (1600 ng/ml) CS1
13.	Instrument Blank

ACTION: If initial calibration is not performed or not performed in the proper sequence, notify the TOPO and make a note in the data assessment.

7.3 Are there any transcription/calculation errors between raw data and the Forms?

— ☐ ☐ ☒

ACTION: If large errors exist, take action specified in section 3.1 above.

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YES NO N/A

7.4 Mean Retention Time (RT) and RT Window

Were the following mean RT and RT window met:

☒ ☐ ☐

a.) The mean RT of each of the three to five major peaks were determined from the five-point initial calibration for all Aroclors

b.) RT window was calculated as ± 0.07 for each of the three to five major peaks and ± 0.05 and ± 0.10 for the surrogates tetrachloro-m-xylene and decachlorobiphenyl, respectively.

ACTION: If no, follow the action as specified in section 3.1.

7.5 Was at least one chromatogram from each of the Aroclor standards yield peaks that give deflection between 50-100% of full scale?

☒ ☐ ☐

ACTION: IF no, take action as specified in section 3.1.

7.6 Was the mean Calibration Factor (CF) calculated for the three to five major peaks of each Aroclor, as well as for the surrogates, over the initial calibration range?

☒ ☐ ☐

7.7 Were the Percent Relative Standard Deviation (%RSD) of the Calibration Factor for the three to five major peaks < 20% of each of the Aroclor compounds and surrogates?

☒ ☐ ☐

ACTION: If no, take action as specified in the following Table.

Initial Calibration Action for Aroclor Analyses

Criteria	Action	
	Detected Associated Compounds	Non-Detected Associated Compounds
Initial calibration is not performed or not performed in proper sequence	Use Professional Judgment and notify Contract Lab Program (CLP) Project Officer	
%RSD exceeds allowable limits *	J	UJ
%RSD within allowable limits *	No qualification	

* %RSD < 20.0% for Aroclors and surrogates (tetrachloro-m-xylene and decachlorobiphenyl).

7.8 Continuing Calibration Verification (CCV) (Form VII)

Were the Absolute Retention Time (RT) for each Aroclor and surrogate in the mid-point concentration (CS3) of

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YES NO N/A

the Standard used for CCV must be within the RT window determined from the initial calibration?

- 7.9 For opening CCV, or closing CCV that is used as an opening CCV for the next 12-hour period, the Percent Difference (%D) between the CF of each of the three to five peaks used to identify an Aroclor and surrogates in the mid-point concentration (CS3) of the Aroclor standards and the CF from the initial calibration must be within $\pm 15.0\%$.
- 7.10 For a closing CCV, the %D between the CF of each of the three to five peaks used to identify an Aroclor and surrogates in the mid-point concentration (CS3) of the Aroclor standards and the CF from the initial calibration must be within $\pm 50.0\%$.
- 7.11 No more than 14 hours may elapse from the injection of the instrument Blank that begins an analytical sequence (opening CCV) and the injection of the last mid-point concentration (CS3) of the Aroclor standards that ends an analytical sequence (closing CCV).
- 7.12 No more than 12 hours may elapse from the injection of the instrument blank that begins an analytical sequence (opening CCV and the injection of the last sample or blank that is part of the same analytical sequence.

Were sections 7.8 to 7.12 met?

11 ☒ ☐

ACTION: If no, use the following table to qualify Aroclor data:

Continuing Calibration Verification (CCV) Action for Aroclor Analyses

Criteria	Action	
	Detected Associated Compounds	Non-Detected Associated Compounds
RT out of RT Window	Use professional Judgment *	
Percent Difference not within limits $\pm 15\%$ as specified in section 7.9 above	J	UJ
Percent Difference not within limits $\pm 50\%$ as specified in section 7.10 above	J	UJ
Time elapsed is greater than acceptable limits as specified in section 7.11 & 7.12 above	R	
Percent Difference, time elapsed and RT are within acceptable limits	No qualification	

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YES NO N/A

* For non-detected target compounds in the affected samples, check to see if the sample chromatogram contain any peak that are close to the expected RT window of the Aroclor of interest.

If no peaks are present, consider the non-detected values to be valid and no qualification of the data is necessary.

If any peaks are present close to the expected RT window of the Aroclor of interest, qualify the non-detected values as presumptively present "N".

For detected compounds in the affected samples, if the peaks are within the RT window, no qualification of the data is necessary. If the peaks are close to the expected RT window of the Aroclors of interest, the reviewer may take additional effort to determine if sample peaks represent the compound of interest.

For example, the reviewer can examine the data package for the presence of three or more standards containing the Aroclor of interest that were run within the analytical sequence during which the sample was analyzed. If three or more such standards are present, the RT window can be re-evaluated using the mean RT of the standards.

If the peaks in the affected sample fall within the revised window, qualify the detected Aroclor as "JN".

If the reviewer cannot do anything with the data to resolve the problem of concern, qualify all non-detects as unuseable "R".

8.0 Analytical Sequence Check (Form VIII-ARO)

8.1 Is Form VIII-Pest present and complete for each column and each period of analyses?

☒ — —

ACTION: If no, take action as specified in section 3.1

8.2 Was the proper analytical sequence followed for each initial calibration and subsequent analyses, and all standards analyzed at the required frequency for each GC/ECD instrument used?

☒ — —

ACTION: If no, use professional judgment to determine the severity of the effect on the data and qualify accordingly. Generally, the effect is negligible unless the sequence was grossly altered and/or the calibration was out of QC limits.

8.3 Are the surrogate retention time (RT) from the initial calibration for TCX and DCB provided on Form VIII-Pest?

☒ — —

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YES NO N/A

ACTION: If no, take action as specified in section 3.1

- 8.4 Was the asterisk (*) applied to the RT of any blanks, samples, standards, MS/MSD, and LCS that did not meet the QC Limits of ± 0.05 minutes for TCX (tetrachloro-m-xylene) and ± 0.10 minutes for DCB (decachlorobiphenyl)?

11 — ✓

ACTION: If any data are missing, take action specified in 3.1 above.

If no, use professional judgment to determine the severity of the effect on the data and qualify accordingly. Document in the data assessment under Contract Problems/Non-Compliance.

9.0 Sulfuric Acid and Gel Permeation Chromatography (GPC) Cleanup Procedures

- 9.1 Was sulfuric acid added to all extracts?

14 ✓ — —

Note: Sulfuric acid cleanup is mandatory for all extracts

ACTION: If no, take action specified in section 3.1

9.2 Gel Permeation Chromatography (GPC)

GPC is an optional cleanup procedure for both aqueous and non-aqueous samples that contain high molecular weight compounds that interfere with Aroclor analysis.

- 9.3 If GPC cleanup was performed on samples, GPC calibration is acceptable if the two UV traces meet the following requirements.

- Peaks must be observed and should be symmetrical for all compounds in the calibration solution.
- Corn oil and phthalate peaks should exhibit greater than 85% resolution.
- The phthalate and Methoxychlor peaks should exhibit greater than 85% resolution.
- Methoxychlor and perylene peaks should exhibit greater than 85% resolution.
- Perylene and sulfur peaks must be saturated and should exhibit greater than 90% baseline resolution.

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YES NO N/A

f. The RT shift is less than 5% between UV traces for bis(2-ethylhexylphthalate and perylene.

9.4 Were all above criteria met?

☐ ☐ ☒

ACTION: If no, examine the raw data for the presence of high molecular weight contaminants. Examine the subsequent sample data for unusual peaks and use professional judgment in qualifying the data.

10.0 Laboratory Control Samples (LCSs)

10.1 LCSs provide information on the accuracy of the analytical method and laboratory performance.

Aroclor Laboratory Control Sample Recovery - Aqueous and Non-Aqueous

Compound	% Recovery QC Limits
Aroclor 1016	50 - 150
Aroclor 1260	50 - 150
Tetrachloro-m-xylene (surrogate)	30 - 150
Decachlorobiphenyl (surrogate)	30 - 150

10.2 Were the above recoveries met?

☒ ☐ ☐

ACTION: If no, qualify the sample data as follows:

Criteria	ACTION	
	Detected Associated Compound	Non-Detected Associated Compound
%R> Upper Acceptance Limit	J	No qualification
%R< Lower Acceptance Limit	J	R
Lower Acceptance Limit < %R < Upper Acceptance Limit	No qualification	

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YES NO N/A

11.0 Aroclor Identification (Form X ARO/Identification Summary for Multicomponent Analysis)

11.1 Is Form X (ARO) complete for every sample in which Aroclor was detected?

☒ YES ☐ NO ☐ N/A

ACTION: Take action as specified in section 3.1 above.

11.2 The identification of a Multi component Aroclor by GC method is based primarily on RT data and pattern recognition. Were the following requirements met:

☒ YES ☐ NO ☐ N/A

- a.) A Minimum of 3 major peaks were selected for each Aroclor. If more than one Aroclor is observed in a sample, a peak common to other Aroclor(s) must not be used to quantitate other Aroclor. Lab must choose different peaks to quantitate each Aroclor.
- b.) If a chromatogram is replotted electronically to meet these requirements, the scaling factor used must be displayed on the chromatogram, and both the initial chromatogram and the replotted chromatogram must be submitted in the data package.
- c.) The Retention Time (RT) of both of the surrogates and reported target compounds must be within the calculated RT window of both columns.
- d.) When no analytes are identified in the sample, the chromatograms of the sample extract must use the same scaling factor used for the low-point standard of the initial calibration associated with those samples.
- e.) Chromatogram must display the largest peak of any Aroclor detected in the sample at less than full scale.
- f.) If an extract must be diluted, chromatograms must display Aroclor peaks between 25-100% of full scale.

ACTION: If retention times (RT) or peak apex cannot be verified, contact TOPO to obtain rescaled chromatograms from the lab.

If data reviewer identifies a peak in both GC columns that fall within the appropriate RT windows, but was reported as

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YES NO N/A

non-detect, the compound may be false negative. If necessary, contact TOPO to instruct laboratory to re-evaluate the chromatograms.

- 11.3 Are there any transcription/calculation errors in Form I and Form X ARO? ☐ ☒

ACTION: Take action as specified in section 3.1 above.

- 11.4 Are the RTs of Aroclor peaks within the established RT window for analyses on both columns? ☒ ☐ ☐

- 11.5 Was the GC/MS confirmation provided for Aroclor concentration > 10 ug/ml in final extract? ☐ ☐ ☒

NOTE: Laboratory is required to contact SMO to determine if GC/MS confirmation is required. Check the semivolatile TIC data for presence of Aroclors.

- 11.6 Is the per cent difference (%D) calculated for positive results on both columns < 25%? ☐ ☒ ☐

☐ ☐ ☐

Action: Reviewer must check columns for peak interferences for the positive hits. Qualify the Arclor (s) according to the following Table:

Action on Qualifying Positive Aroclor Results

Percent Differences	Qualifier
0 - 25%	None
26 - 70%	"J"
71 - 100%	"JN"
101 - 200% (No Peak Interferences)	"R"
101 - 200% (Interferences detected) *	"JN"

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YES NO N/A

> 50% (Aroclor value < CRQL)**	"U"
> 200%	"R"

* When interferences is detected on either column, qualify the data as "JN"

** When the Aroclor value is below CRQL and %D > 50%, raise the value to CRQL and qualify "U", undetected.

12.0 Target Aroclor List (TCL)

12.1 Are the Aroclor Analysis Data Sheets (Form I ARO) present with required header information on each page for samples, MS/MSD (if required), method and instrument blanks (per column & analysis)?

☒ ☐ ☐

12.2 Is the chromatographic performance acceptable with respect to baseline stability, full-scale attenuation, peak shape/resolution?

☒ ☐ ☐

ACTION: If no, take action specified in section 3.1 above.

13.0 Compound Quantitation and Reported Detection Limits

13.1 Are there any transcription/calculation errors in the Form I results? Check at least two positive results. Were any errors found?

☐ ☐ ☒

ACTION: If errors were found, take action as specified in section 3.1 above.

13.2 Are the contract required quantitation limits (CRQL) adjusted to reflect sample dilution?

☒ ☐ ☐

ACTION: If errors exist, take action as specified in section 3.1 above.

ACTION: When a sample is required to be diluted, the lowest CRQL is used (unless a QC exceedance dictates the use of the higher CRQL from the diluted sample). Replace concentration which exceed the calibration range in the original analysis by crossing out the "E" value on the original Form I and substituting it with the result from the diluted sample. Specify which Form I to use.

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YES NO N/A

Use a red pencil and draw a red "X" across the entire page of all Form I's that should not be used, including those in the data summary package.

At the top or bottom of the Forms, write with red pencil, "DO Not Use".

Note: If the sample dilution factor (DF) is greater than 10, an additional 10 times more concentrated than the diluted sample extract must be analyzed and reported with the sample data. If the DF is less or equal to 10, but greater than 1, the results of the original undiluted analysis must also be reported (see SOM01.1/section 10.3.3.4/page D-44/ARO).

ACTION: IF the above requirement was not met, contact the TOPO to obtain an explanation/resubmittal from the lab and make a note in the Data Assessment under Contract Problems/Non-Compliance section.

13.3 For non-aqueous samples, were the percent moisture < 70%? ☒ ☐ ☐

Action: If the % moisture $\geq 70.0\%$ and $< 90.0\%$, qualify detects as "J" and non-detects as approximated "UJ" If the % Moisture $\geq 90\%$, qualify detects as "J" and non-detects as "R"

14.0 Field Duplicates

14.1 Were any field duplicates submitted for Aroclor analysis? ☐ ☒ ☐

ACTION: Compare the reported results for field duplicates and calculate the relative percent difference.

ACTION: Any gross variation between duplicate results must be addressed in the reviewer narrative. If large differences exist, contact the TOPO to confirm identification of field duplicates with the sampler.

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YES NO N/A

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YES NO N/A

Definitions

ARO - Aroclor
CCS - contract compliance screening
CF - Calibration Factor
CLASS - Contract Laboratory Analytical Services Support
CLP - Contract Laboratory Program
CRQL - Contract Required Quantitation Limit
GC/ECD - Gas Chromatography/Electron Capture Detector
kg - kilogram
µg - microgram
l - liter
ml - milliliter
QC - quality control
RAS - Routine Analytical Services
RPD - Relative Percent Difference
RRF - Relative Response Factor
RRF - Average Relative Response Factor (from initial calibration)
RRT - Relative Retention Time
RSD - Relative Standard Deviation
RT - Retention Time
RSCC - Regional Sample Control Center
SDG - Sample Delivery Group
SOP - standard operating procedure
SOW - Statement of Work
TCL - Target Compound List
TCLP - Toxicity Characteristics Leachate Procedure
TIC - Tentatively Identified Compound
TPO - Technical Project Officer
VTSR - Validated Time of Sample Receipt
TOPO - Task Order Project Officer

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YES NO N/A

References

1. USEPA Contract Laboratory Program of Work for Organic Analysis Multi-Media, Multi-Concentration, SOW/CLP/SOM01.2, February 2007.
2. National Functional Guidelines for Superfund Organic Methods Data Review July 2007.

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Validation of Data
USEPA Contract Laboratory Program
Statement of Work for Organic Analysis of Low/Medium
Concentration of Aroclor Organic Compounds SOM01.2



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INTRODUCTION

Scope and Applicability

This SOP offers detailed guidance in evaluating laboratory data generated according to the method in the "USEPA Contract Laboratory Program Statement of Work for Organics Analysis Multi-Media, Multi-Concentration, SOM01.2, February 2007". The validation procedures and actions discussed in this document are based on the requirements set forth in the "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, July 2007". This document attempts to cover technical problems specific to low/Medium concentration of Aroclor compounds. Situations may arise where data limitations must be assessed based on the reviewer's own professional judgement.

In addition to technical requirements, contractual requirements may also be covered in this document. While it is important that instances of contract non-compliance be addressed in the Data Assessment, the technical criteria are always used to qualify the analytical data.

Summary

To ensure a thorough evaluation of each result in a data case, the reviewer must complete the checklist within this SOP, answering specific questions while performing the prescribed "ACTIONS" in each section. Qualifiers (or flags) are applied to questionable or unusable results as instructed. The data qualifiers discussed in this document are as follows:

Data Qualifiers

- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- JN - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

- UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Lab Qualifiers:

- D - The positive value is the result of an analysis at a secondary dilution factor.
- B - The analyte is present in the associated method blank as well as in the sample. This qualifier has a different meaning when validating inorganic data.
- E - The concentration of this analyte exceeds the calibration range of the instrument.
- P - Pesticide/Aroclor target analytes when the % Difference between the analyte concentrations obtained from the two dissimilar GC columns is greater than 25%.

The reviewer must prepare a detailed data assessment to be submitted along with the completed SOP checklist. The Data Assessment must list all data qualifications, reasons for qualifications, instances of missing data and contract non-compliance.

Reviewer Qualifications:

Data reviewers must possess a working knowledge of the USEPA Statement of Work SOM01.2 and National Functional Guidelines mentioned above.

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YES NO N/A

PACKAGE COMPLETENESS AND DELIVERABLES

CASE NUMBER: 37088 LAB: SHEALY

SITE NAME: CORNELL DUBILIER SDG No(s): B48X1

1.0 Chain of Custody and Sampling Trip Reports

- 1.1 Are the Traffic Reports/Chain-of-Custody Records present for all samples?

☒

ACTION: If no, contact RSCC, or the TOPO to obtain replacement of missing or illegible copies from the lab.

- 1.2 Is the Sampling Trip Report present for all samples?

☒

ACTION: If no, contact either RSCC or ask the TOPO to obtain the necessary information from the prime contractor.

2.0 Data Completeness and Deliverables

- 2.1 Have any missing deliverables been received and added to the data package?

 ☒

ACTION: Contact the TOPO to obtain an explanation or resubmittal of any missing deliverables from the lab. If lab cannot provide them, note the effect on the review of the data package in the Contract Problems/Non-compliance section of the Data Assessment.

- 2.2 Was SMO/CLASS CCS checklist included with the package?

☒

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YES NO N/A

- 2.3 Are there any discrepancies between the Traffic Reports/Chain-of-Custody Records, and Sampling Trip Report?

2/21
18
✓

ACTION: If yes, contact the TOPO to obtain an explanation or resubmittal of any missing deliverables from the laboratory.

3.0 Cover Letter SDG Narrative

- 3.1 Is the SDG Narrative or Cover Letter Present?
- 3.2 Are case number, SDG number and contract number contained in the SDG Narrative or cover letter (see SOW, Exhibit B, section 2.5.1)?
EPA sample numbers in the SDG, detailed documentation of any quality control, sample, shipment, and/or analytical problems encountered in processing the samples? Corrective action taken?
- 3.3 Does the Narrative contain the following information SOM01.1, page B-12, section 2.5.1)?
column used, storage of samples, case#, SDG#, analytical problems, and discrepancies between field and lab weights.
- 3.5 Did the contractor record the temperature of the cooler on the Form DC-1, Item 9 - Cooler Temperature, and in the SDG Narrative?
- 3.6 Does the Case Narrative contain the "verbatim" statement (page B-12, section 2.5.1 of the SOM)?

✓

✓

✓

✓

✓

ACTION: If "No", to any question in this section, contact the TOPO to obtain necessary resubmittals. If unavailable, document under the Contract Problems/Non-Compliance section of the Data Assessment.

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YES NO N/A

4.0 Data Validation Checklist

4.1 Check the package for the following (see SOM reporting requirements, section 2.1, page B-10):

a. Is the package paginated in ascending order starting from the SDG narrative?

☒ — —

b. Are all forms and copies legible?

☒ — —

c. Assembled in the order set forth in the SOW?

☒ — —

d. All Aroclor Data present?

☒ —

PART A: Low/Medium Aroclor Analyses

1.0 Sample Conditions/Problems

1.1 Do the Traffic Reports/Chain-of-Custody Records, Sampling Trip Report or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?

— ☒ —

ACTION: If samples were not iced or the ice was melted upon arrival at the laboratory and the temperature of the cooler was $> 10^{\circ}\text{C}$, then flag all positive results with a "J" and all non-detects "UJ".

2.0 Holding Times

2.1 Have any Aroclor technical holding times, determined from date of collection to date of analysis, been exceeded?

— ☒ —

2.2 Preservation: Aqueous and Non-aqueous samples must be cooled at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$.

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YES NO N/A

ACTION: Qualify sample results according to the following table.

Holding Time Actions for Low/Medium Aroclor Analyses

Matrix	Preserved	Criteria	Action	
			Detected Associated Compounds	Non-Detected Associated Compounds
Aqueous	No	≤ 7 days (extraction) < 40 days (analysis)	J*	UJ*
	No	> 7 days (extraction) > 40 days (analysis)	J	UJ
	Yes	≤ 7 days (extraction) ≤ 40 days (analysis)	No qualification	
	Yes	> 7 days (extraction) > 40 days (analysis)	J	UJ
	Yes/No	> 28 Days (extraction)	J	R
Non-aqueous	No	≤ 14 days (extraction) ≤ 40 days (analysis)	J*	UJ*
	No	> 14 days (extraction) > 40 days (analysis)	J	UJ
	Yes	≤ 14 days (extraction) ≤ 40 days (analysis)	No qualification	
	Yes	> 14 days (extraction) > 40 days (analysis)	J	UJ
	Yes/No	> 28 Days (extraction)	J	R

* Only if cooler temperature exceeds 10°C (see ACTION in Section 1.1 above).
No action required if temperature $\leq 10^\circ\text{C}$.

3.0 Surrogate Recovery (Form II ARO-1, Form II ARO-2, Form VIII ARO)

3.1 Are the Aroclor Recovery Summary Forms present?

☒

ACTION: Contact the TOPO to obtain an explanation/resubmittal from the lab. If missing deliverables are unavailable, document the effect in the Data Assessment.

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YES NO N/A

- 3.2 Were the two surrogates, tetrachloro-m-xylene (TCX) and decachlorobiphenyl (DCB) added to all samples, MS/MSD, LCS, blanks including standards?

☒ ☐ ☐

ACTION: If no, use professional judgment in qualifying data as missing surrogate analyte may not directly apply to target analytes.

- 3.3 Were outliers marked with an asterisk on Form II?

☒ ☐ ☒

ACTION: Circle all outliers with a red pencil.

If yes, were effected samples re-analyzed?

☒ ☐ ☒

- 3.4 The RTs of the surrogates in each mid-point Aroclor standards used for continuing calibration verification, all samples, including MS/MSD, LCS and all blanks must be within the calculated RT window. TCX must be within ± 0.05 minutes and DCB must be within ± 0.10 minutes of the mean retention time (RT) determined from the initial calibration and tabulated in Form VIII Pest.

Were any outliers marked with an asterisk on Form VIII ARO?

☐ ☒ ☐

ACTION: Circle all outliers with a red pencil. If any Surrogate is outside the required limits, qualify their associated target compounds (See Table below) as follows:

Surrogate Compound Recovery Action for Aroclors

Criteria	Action	
	Detected Target Compounds	Non-Detected Target Compounds
%R > 200%	J	No qualification
150% < %R ≤ 200%	J	No qualification
30% ≤ %R ≤ 150%	No qualification	
10% ≤ %R < 30%	J	UJ
%R < 10% (sample dilution not a factor)	J	R
%R < 10% (sample dilution is a factor)	J	Use Professional Judgement
RT out of RT window	Use professional judgment	
RT within RT window	No qualification	

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YES NO N/A

Note: Blank analysis having surrogates out of specification:

The reviewer must give special consideration to the validity of associated samples. Basic concern is whether the blank problems represent an isolated problem with the blank alone or whether there is a fundamental problem with the analytical process. For example, if one or more samples in the batch show acceptable surrogate recoveries, the reviewer may choose to consider the blank problem to be an isolated occurrence.

ACTION: Note in the Data Assessment under Contract Problems/Non-Compliance if the Lab did not perform reanalysis and reviewer's judgment regarding blank problem.

3.5 Are there any transcription/calculation errors between raw data and Form IIs? ☐ ☒

ACTION: If large errors exist, ask the TOPO to obtain an explanation/resubmittal from the lab, make any necessary corrections and note errors in the data assessment.

4.0 Matrix Spike/Matrix Spike Duplicate Recovery (Form III)

Note: Data for MS/MSD will not be present unless requested.

4.1 Are the MS/MSD Recovery Forms (Form III ARO) present? ☐ ☒

4.2 Was the MS/MSD analyzed at the required frequency (once per SDG, or every 20 samples, whichever is more frequent)? ☐ ☒

ACTION: If any MS/MSD data are missing, take action as specified in section 3.1 above.

ACTION: No action is taken on MS/MSD data alone. However, using professional judgement, the validator may use the MS and MSD results in conjunction with other QC criteria and determine the need for some qualification of the data. If Any MS/MSD % recovery or RPD is out of specification, qualify data to include the consideration of the existence of interference in the raw data. Consideration include, but not limited to the following "Action":

Matrix Spike/Matrix Spike Duplicate Action for Aroclor

Criteria	Action	
	Detected Spike Compounds	Non-detected Spike Compounds
%R or RPD > Upper Acceptance Limit	J	No qualification
20% ≤ %R < Lower Acceptance Limit	J	UJ

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YES NO N/A

%R < 20%	J	Use professional judgement
Lower Acceptance Limit \leq %R; RPD \leq Upper Acceptance Limit	No qualification	

Note: If it can be determined that the results of the MS/MSD affects only the sample spiked, limit qualification to only this sample. However, use professional judgment when it is determined through the MS/MSD results that the laboratory is having systematic problem in the analysis of one or more analytes that affect all associated samples.

5.0 Blanks (Form IV)

5.1 Is the Aroclor Method Blank Summary (Form IV ARO) present for aqueous and soil samples?

☒ ☐ ☐

5.2 Frequency of Analysis: For the analysis of AROCLOR, has a method blank been analyzed for each SDG or every 20 samples, whichever is more frequent?

☒ ☐ ☐

ACTION: If any blank data are missing, take action as specified above in section 3.1. If blank data is not available, reject "R" all associated positive data. However, using professional judgement, the data reviewer may substitute field blank data for missing method blank data.

5.3 A separate Form IV should be present if part of an extraction batch required sulfur removal. In such cases some samples will be listed on two blank summary forms - once under the method blank, and once under the sulfur clean-up blank (PCBLK). Was this additional blank raw data and Form IV submitted when required?

☐ ☐ ☒

ACTION: If Form IV sulfur clean-up blank is missing, take action as specified in section 3.1 above.

5.4 Has a Aroclor instrument blank been analyzed at the beginning of every 12 hr. period following the initial calibration sequence (minimum contract requirement)?

☒ ☐ ☐

ACTION: If any blank data are missing, take action specified in Section 3.1.

5.5 Was the correct identification scheme used for all Aroclor blanks? (See page B-39, section 3.3.7.3 of SOM01.1 for further information)

☒ ☐ ☐

ACTION: Contact the TOPO to obtain resubmittals or make the required corrections on the forms.

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YES NO N/A

Document in the Data Assessment under Contract Problems/Non-Compliance all corrections made by the validator.

- 5.6 Chromatography: Review the blank raw data chromatogram, quant. Reports and data system printout. Is the chromatographic performance (baseline stability) acceptable for each instrument?

☒ ☐ ☐

ACTION: Use professional judgement to determine the effect on the data.

- 5.7 Are all detected hits for target compounds in method, and field blanks less than the CRQL?

☒ ☐ ☐

ACTION: IF no, an explanation and laboratory's corrective actions must be addressed in the case SDG narrative. Contact TOPO to request from Lab. revised narrative and make a note in the Contract Problems/Non-Compliance section of the Data Assessment.

6.0 Contamination

NOTE: "Water blanks", "drill blanks", and distilled water blanks" are validated like any other sample, and are not used to qualify data. Do not confuse them with the other QC blanks discussed below.

- 6.1 Do any method/reagent or cleanup blanks contain positive hits for target Aroclor compounds with values greater than the CRQL for that analyte?

☐ ☒ ☐

Note: The concentration of each target compound in the instrument blank must be less than the CRQL for that analyte.

ACTION: Make note in data assessment under Contract Problems/Non-Compliance if any blank contains hit above the CRQLs.

- 6.2 Do any instrument blanks contain positive Aroclor results with values greater than CRQLs?

☐ ☒ ☐

ACTION: Take the action specified in section 6.1.

- 6.3 Do any field/rinse blanks have positive Aroclor results?

☐ ☒ ☒

NOTE: All field blank results associated with a particular group of samples (may exceed one per case) must be used to qualify data. Blanks may not be qualified because of contamination in another blank. Field blanks must be qualified for system monitoring compound, instrument performance criteria, spectral or calibration QC problems.

ACTION: Follow the directions in the table below to qualify results due to contamination. Use the largest value from all the associated

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YES NO N/A

blanks. If any blanks are grossly contaminated, all associated sample data should be qualified unusable (R).

Blank Action for Aroclor Analyses

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Field, Sulfur Cleanup, Instrument	Detects	Not detected	No qualification required
	< CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL	No qualification required
	= CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL	No qualification required
	> CRQL	< CRQL	Report CRQL value with a U
		≥ CRQL and < blank contamination	Report concentration of sample with a U
		≥ CRQL and ≥ blank contamination	No qualification required
	Gross contamination	Detects	Qualify results as unusable R

NOTE: Analytes qualified "U" for blank contamination are treated as "hits" when qualifying for calibration criteria.

Note: When applied as described in the table above, the contaminant concentration in the blank are multiplied by the sample dilution factor.

6.4 Are there field/rinse/equipment blanks associated with every sample?

IV

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ACTION: Note in data assessment if there's no associated field/rinse/equipment blank.

Exception: samples taken from a drinking water tap do not have associated field blanks.

7.0 Aroclor Initial and Continuing Calibration

7.1 Are the following Forms, chromatograms and data system printouts present?

a.) Form VI ARO-1/Aroclor Initial Calibration (Multipoint)

M

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	YES	NO	N/A
b.) Form VI ARO-2/Aroclor Initial Calibration (Multipoint)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.) Form VI ARO-3/Aroclor Initial Calibration (Singlepoint)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.) Form VII ARO/Aroclor Calibration Verification	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.) Form VIII ARO/Aroclor Analytical Sequence	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f.) Form X ARO/Identification Summary for Multicomponent Analysis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7.2 Initial Calibration

7.2.1 Was the following contract required initial calibration sequence provided by the laboratory?

☒ ☐ ☐

Initial Calibration Sequence	
1.	Aroclor 1221 CS3 (400ng/ml)
2.	Aroclor 1232 CS3 (400 ng/ml)
3.	Aroclor 1242 CS3 (400 ng/ml)
4.	Aroclor 1248 CS3 (400 ng/ml)
5.	Aroclor 1254 CS3 (400 ng/ml)
6.	Aroclor 1262 CS3 (400 ng/ml)
7.	Aroclor 1268 CS3 (400 ng/ml)
8.	Aroclor1016/1260 (100 ng/ml) CS1
9.	Aroclor1016/1260 (200 ng/ml) CS1
10.	Aroclor1016/1260 (400 ng/ml) CS1
11.	Aroclor1016/1260 (800 ng/ml) CS1
12.	Aroclor1016/1260 (1600 ng/ml) CS1
13.	Instrument Blank

ACTION: If initial calibration is not performed or not performed in the proper sequence, notify the TOPO and make a note in the data assessment.

7.3 Are there any transcription/calculation errors between raw data and the Forms?

☐ ☐ ☒

ACTION: If large errors exist, take action specified in section 3.1 above.

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YES NO N/A

7.4 Mean Retention Time (RT) and RT Window

Were the following mean RT and RT window met:

☒ ☐ ☐

a.) The mean RT of each of the three to five major peaks were determined from the five-point initial calibration for all Aroclors

b.) RT window was calculated as ± 0.07 for each of the three to five major peaks and ± 0.05 and ± 0.10 for the surrogates tetrachloro-m-xylene and decachlorobiphenyl, respectively.

ACTION: If no, follow the action as specified in section 3.1.

7.5 Was at least one chromatogram from each of the Aroclor standards yield peaks that give deflection between 50-100% of full scale?

☒ ☐ ☐

ACTION: IF no, take action as specified in section 3.1.

7.6 Was the mean Calibration Factor (CF) calculated for the three to five major peaks of each Aroclor, as well as for the surrogates, over the initial calibration range?

☒ ☐ ☐

7.7 Were the Percent Relative Standard Deviation (%RSD) of the Calibration Factor for the three to five major peaks < 20% of each of the Aroclor compounds and surrogates?

☒ ☐ ☐

ACTION: If no, take action as specified in the following Table.

Initial Calibration Action for Aroclor Analyses

Criteria	Action	
	Detected Associated Compounds	Non-Detected Associated Compounds
Initial calibration is not performed or not performed in proper sequence	Use Professional Judgment and notify Contract Lab Program (CLP) Project Officer	
%RSD exceeds allowable limits *	J	UJ
%RSD within allowable limits *	No qualification	

* %RSD < 20.0% for Aroclors and surrogates (tetrachloro-m-xylene and decachlorobiphenyl).

7.8 Continuing Calibration Verification (CCV) (Form VII)

Were the Absolute Retention Time (RT) for each Aroclor and surrogate in the mid-point concentration (CS3) of

• • • • •

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YES NO N/A

the Standard used for CCV must be within the RT window determined from the initial calibration?

- 7.9 For opening CCV, or closing CCV that is used as an opening CCV for the next 12-hour period, the Percent Difference (%D) between the CF of each of the three to five peaks used to identify an Aroclor and surrogates in the mid-point concentration (CS3) of the Aroclor standards and the CF from the initial calibration must be within $\pm 15.0\%$.
- 7.10 For a closing CCV, the %D between the CF of each of the three to five peaks used to identify an Aroclor and surrogates in the mid-point concentration (CS3) of the Aroclor standards and the CF from the initial calibration must be within $\pm 50.0\%$.
- 7.11 No more than 14 hours may elapse from the injection of the instrument Blank that begins an analytical sequence (opening CCV) and the injection of the last mid-point concentration (CS3) of the Aroclor standards that ends an analytical sequence (closing CCV).
- 7.12 No more than 12 hours may elapse from the injection of the instrument blank that begins an analytical sequence (opening CCV and the injection of the last sample or blank that is part of the same analytical sequence.

Were sections 7.8 to 7.12 met?

ACTION: If no, use the following table to qualify Aroclor data:

Continuing Calibration Verification (CCV) Action for Aroclor Analyses

Criteria	Action	
	Detected Associated Compounds	Non-Detected Associated Compounds
RT out of RT Window	Use professional Judgment *	
Percent Difference not within limits $\pm 15\%$ as specified in section 7.9 above	J	UJ
Percent Difference not within limits $\pm 50\%$ as specified in section 7.10 above	J	UJ
Time elapsed is greater than acceptable limits as specified in section 7.11 & 7.12 above	R	
Percent Difference, time elapsed and RT are within acceptable limits	No qualification	

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YES NO N/A

* For non-detected target compounds in the affected samples, check to see if the sample chromatogram contain any peak that are close to the expected RT window of the Aroclor of interest.

If no peaks are present, consider the non-detected values to be valid and no qualification of the data is necessary.

If any peaks are present close to the expected RT window of the Aroclor of interest, qualify the non-detected values as presumptively present "N".

For detected compounds in the affected samples, if the peaks are within the RT window, no qualification of the data is necessary. If the peaks are close to the expected RT window of the Aroclors of interest, the reviewer may take additional effort to determine if sample peaks represent the compound of interest.

For example, the reviewer can examine the data package for the presence of three or more standards containing the Aroclor of interest that were run within the analytical sequence during which the sample was analyzed. If three or more such standards are present, the RT window can be re-evaluated using the mean RT of the standards.

If the peaks in the affected sample fall within the revised window, qualify the detected Aroclor as "JN".

If the reviewer cannot do anything with the data to resolve the problem of concern, qualify all non-detects as unuseable "R".

8.0 Analytical Sequence Check (Form VIII-ARO)

- 8.1 Is Form VIII-Pest present and complete for each column and each period of analyses?

☒ — —

ACTION: If no, take action as specified in section 3.1

- 8.2 Was the proper analytical sequence followed for each initial calibration and subsequent analyses, and all standards analyzed at the required frequency for each GC/ECD instrument used?

☒ — —

ACTION: If no, use professional judgment to determine the severity of the effect on the data and qualify accordingly. Generally, the effect is negligible unless the sequence was grossly altered and/or the calibration was out of QC limits.

- 8.3 Are the surrogate retention time (RT) from the initial calibration for TCX and DCB provided on Form VIII-Pest?

☒ — —

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YES NO N/A

ACTION: If no, take action as specified in section 3.1

- 8.4 Was the asterisk (*) applied to the RT of any blanks, samples, standards, MS/MSD, and LCS that did not meet the QC Limits of ± 0.05 minutes for TCX (tetrachloro-m-xylene) and ± 0.10 minutes for DCB (decachlorobiphenyl)?

W
2/21
MI ✓

ACTION: If any data are missing, take action specified in 3.1 above.

If no, use professional judgment to determine the severity of the effect on the data and qualify accordingly. Document in the data assessment under Contract Problems/Non-Compliance.

9.0 Sulfuric Acid and Gel Permeation Chromatography (GPC) Cleanup Procedures

- 9.1 Was sulfuric acid added to all extracts?

✓

Note: Sulfuric acid cleanup is mandatory for all extracts

ACTION: If no, take action specified in section 3.1

9.2 Gel Permeation Chromatography (GPC)

GPC is an optional cleanup procedure for both aqueous and non-aqueous samples that contain high molecular weight compounds that interfere with Aroclor analysis.

- 9.3 If GPC cleanup was performed on samples, GPC calibration is acceptable if the two UV traces meet the following requirements.
- a. Peaks must be observed and should be symmetrical for all compounds in the calibration solution.
 - b. Corn oil and phthalate peaks should exhibit greater than 85% resolution.
 - c. The phthalate and Methoxychlor peaks should exhibit greater than 85% resolution.
 - d. Methoxychlor and perylene peaks should exhibit greater than 85% resolution.
 - e. Perylene and sulfur peaks must be saturated and should exhibit greater than 90% baseline resolution.

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YES NO N/A

- f. The RT shift is less than 5% between UV traces for bis(2-ethylhexylphthalate and perylene.

9.4 Were all above criteria met?

11 — ✓

ACTION: If no, examine the raw data for the presence of high molecular weight contaminants. Examine the subsequent sample data for unusual peaks and use professional judgment in qualifying the data.

10.0 Laboratory Control Samples (LCSs)

10.1 LCSs provide information on the accuracy of the analytical method and laboratory performance.

Aroclor Laboratory Control Sample Recovery - Aqueous and Non-Aqueous

Compound	% Recovery QC Limits
Aroclor 1016	50 - 150
Aroclor 1260	50 - 150
Tetrachloro-m-xylene (surrogate)	30 - 150
Decachlorobiphenyl (surrogate)	30 - 150

10.2 Were the above recoveries met?

11 — —

ACTION: If no, qualify the sample data as follows:

Criteria	ACTION	
	Detected Associated Compound	Non-Detected Associated Compound
%R> Upper Acceptance Limit	J	No qualification
%R< Lower Acceptance Limit	J	R
Lower Acceptance Limit < %R < Upper Acceptance Limit	No qualification	

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YES NO N/A

11.0 Aroclor Identification (Form X ARO/Identification Summary for Multicomponent Analysis)

- 11.1 Is Form X (ARO) complete for every sample in which Aroclor was detected?

☒ _____

ACTION: Take action as specified in section 3.1 above.

- 11.2 The identification of a Multi component Aroclor by GC method is based primarily on RT data and pattern recognition. Were the following requirements met:

☒ _____

- a.) A Minimum of 3 major peaks were selected for each Aroclor. If more than one Aroclor is observed in a sample, a peak common to other Aroclor(s) must not be used to quantitate other Aroclor. Lab must choose different peaks to quantitate each Aroclor.
- b.) If a chromatogram is replotted electronically to meet these requirements, the scaling factor used must be displayed on the chromatogram, and both the initial chromatogram and the replotted chromatogram must be submitted in the data package.
- c.) The Retention Time (RT) of both of the surrogates and reported target compounds must be within the calculated RT window of both columns.
- d.) When no analytes are identified in the sample, the chromatograms of the sample extract must use the same scaling factor used for the low-point standard of the initial calibration associated with those samples.
- e.) Chromatogram must display the largest peak of any Aroclor detected in the sample at less than full scale.
- f.) If an extract must be diluted, chromatograms must display Aroclor peaks between 25-100% of full scale.

ACTION: If retention times (RT) or peak apex cannot be verified, contact TOPO to obtain rescaled chromatograms from the lab.

If data reviewer identifies a peak in both GC columns that fall within the appropriate RT windows, but was reported as

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YES NO N/A

non-detect, the compound may be false negative. If necessary, contact TOPO to instruct laboratory to re-evaluate the chromatograms.

- 11.3 Are there any transcription/calculation errors in Form I and Form X ARO? 11 ✓

ACTION: Take action as specified in section 3.1 above.

- 11.4 Are the RTs of Aroclor peaks within the established RT window for analyses on both columns? ✓

- 11.5 Was the GC/MS confirmation provided for Aroclor concentration > 10 ug/ml in final extract? 11 ✓

NOTE: Laboratory is required to contact SMO to determine if GC/MS confirmation is required. Check the semivolatile TIC data for presence of Aroclors.

- 11.6 Is the per cent difference (%D) calculated for positive results on both columns < 25%?

11 ✓

Action: Reviewer must check columns for peak interferences for the positive hits. Qualify the Arclor (s) according to the following Table:

Action on Qualifying Positive Aroclor Results

Percent Differences	Qualifier
0 - 25%	None
26 - 70%	"J"
71 - 100%	"JN"
101 - 200% (No Peak Interferences)	"R"
101 - 200% (Interferences detected)*	"JN"

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YES NO N/A

> 50% (Aroclor value < CRQL)**	"U"
> 200%	"R"

* When interferences is detected on either column, qualify the data as "JN"

** When the Aroclor value is below CRQL and %D > 50%, raise the value to CRQL and qualify "U", undetected.

12.0 Target Aroclor List (TCL)

12.1 Are the Aroclor Analysis Data Sheets (Form I ARO) present with required header information on each page for samples, MS/MSD (if required), method and instrument blanks (per column & analysis)?

☒ ☐ ☐

12.2 Is the chromatographic performance acceptable with respect to baseline stability, full-scale attenuation, peak shape/resolution?

☒ ☐ ☐

ACTION: If no, take action specified in section 3.1 above.

13.0 Compound Quantitation and Reported Detection Limits

13.1 Are there any transcription/calculation errors in the Form I results? Check at least two positive results. Were any errors found?

☐ ☐ ☒

ACTION: If errors were found, take action as specified in section 3.1 above.

13.2 Are the contract required quantitation limits (CRQL) adjusted to reflect sample dilution?

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☒ ☐ ☒

ACTION: If errors exist, take action as specified in section 3.1 above.

ACTION: When a sample is required to be diluted, the lowest CRQL is used (unless a QC exceedance dictates the use of the higher CRQL from the diluted sample). Replace concentration which exceed the calibration range in the original analysis by crossing out the "E" value on the original Form I and substituting it with the result from the diluted sample. Specify which Form I to use.

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YES NO N/A

Use a red pencil and draw a red "X" across the entire page of all Form I's that should not be used, including those in the data summary package.

At the top or bottom of the Forms, write with red pencil, "DO Not Use".

Note: If the sample dilution factor (DF) is greater than 10, an additional 10 times more concentrated than the diluted sample extract must be analyzed and reported with the sample data. If the DF is less or equal to 10, but greater than 1, the results of the original undiluted analysis must also be reported (see SOM01.1/section 10.3.3.4/page D-44/ARO).

ACTION: IF the above requirement was not met, contact the TOPO to obtain an explanation/resubmittal from the lab and make a note in the Data Assessment under Contract Problems/Non-Compliance section.

13.3 For non-aqueous samples, were the percent moisture < 70%? IV

Action: If the % moisture $\geq 70.0\%$ and $< 90.0\%$, qualify detects as "J" and non-detects as approximated "UJ" If the % Moisture $\geq 90\%$, qualify detects as "J" and non-detects as "R"

14.0 Field Duplicates

14.1 Were any field duplicates submitted for Aroclor analysis?

ACTION: Compare the reported results for field duplicates and calculate the relative percent difference.

ACTION: Any gross variation between duplicate results must be addressed in the reviewer narrative. If large differences exist, contact the TOPO to confirm identification of field duplicates with the sampler.

STANDARD OPERATING PROCEDURE

USEPA Region II

Method: CLP/SOW, SOM01.2/Aroclor

Date: August 2007

SOP HW-37/Aroclor, Revision 1

YES NO N/A

STANDARD OPERATING PROCEDURE

USEPA Region II
Method: CLP/SOW, SOM01.2/Aroclor

Date: August 2007
SOP HW-37/Aroclor, Revision 1

YES NO N/A

Definitions

ARO - Aroclor
CCS - contract compliance screening
CF - Calibration Factor
CLASS - Contract Laboratory Analytical Services Support
CLP - Contract Laboratory Program
CRQL - Contract Required Quantitation Limit
GC/ECD - Gas Chromatography/Electron Capture Detector
kg - kilogram
µg - microgram
l - liter
ml - milliliter
QC - quality control
RAS - Routine Analytical Services
RPD - Relative Percent Difference
RRF - Relative Response Factor
RRF - Average Relative Response Factor (from initial calibration)
RRT - Relative Retention Time
RSD - Relative Standard Deviation
RT - Retention Time
RSCC - Regional Sample Control Center
SDG - Sample Delivery Group
SOP - standard operating procedure
SOW - Statement of Work
TCL - Target Compound List
TCLP - Toxicity Characteristics Leachate Procedure
TIC - Tentatively Identified Compound
TPO - Technical Project Officer
VTSR - Validated Time of Sample Receipt
TOPO - Task Order Project Officer

STANDARD OPERATING PROCEDURE

USEPA Region II

Method: CLP/SOW, SOM01.2/Aroclor

Date: August 2007

SOP HW-37/Aroclor, Revision 1

YES NO N/A

References

1. USEPA Contract Laboratory Program of Work for Organic Analysis Multi-Media, Multi-Concentration, SOW/CLP/SOM01.2, February 2007.
2. National Functional Guidelines for Superfund Organic Methods Data Review July 2007.

Shealy Environmental Services, Inc.

Contract Number: EPW05031

Date: 01/30/2008

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HAZ. WASTE SUPPORT SEC

SDG Narrative

Case 37088

SDG B4QX1

EPA Sample Numbers

EPA Sample Number	Aroclor Fraction	Dilution/ Reanalysis
B4QX1	Yes	Yes
B4QX2	Yes	Yes

Columns	Aroclor #1 DB-XLB 30m x 0.32mm x 0.50um Aroclor #2 DB-35MS 30m x 0.32mm x 0.25um
----------------	---

PEST/Aroclor Equation	$\text{Soil sample concentration (ug/Kg)} = \frac{(A_x)(V_t)(DF)(GPC)}{(\overline{CF})(V_i)(W_s)(D)}$ <p>Where A_x is the response (peak area) of the compound to be measured. \overline{CF} is the mean calibration factor from the initial calibration (area/ng). DF is the dilution factor. GPC = V_{in}/V_{out}: GPC factor. V_{in} is the volume of extract loaded onto GPC column. V_{out} is the volume of extract collected after GPC cleanup. V_t is volume of the concentrated extract in uL. (If no GPC cleanup is performed, then $V_t = 1000\text{uL}$. If GPC cleanup is performed, then $V_t = V_{out}$.) V_i is the volume of the extract injected in uL. W_s is the weight of sample extracted in g.. $D = \frac{100 - \% \text{Moisture}}{100}$</p>
------------------------------	--

Sample Receiving

The cooler temperature associated with these samples was 4.7°C.

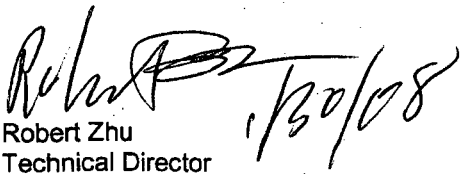
Aroclor Fraction

All samples in the SDG were extracted by the Automated Solvent Extractor (ASE). To ensure proper extraction, approximately 15 grams of sample were used for extraction. The final volume of the extract was brought to 5mL, instead of 10mL, so the CRQLs remain the same.

No MS/MSD was performed for this SDG due to laboratory oversight.

Due to analyst oversight, the LCS spiking solution was prepared at a concentration 10 times higher than what is specified in the SOW. The LCS recoveries, calculated based on the adjusted spiking concentration, are within the acceptance limits. Per instruction from the Region, the lab proceeded with the analysis of the samples.

I certify that this Sample Data Package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.


Robert Zhu
Technical Director

Shealy Environmental Services, Inc.

Contract Number: EPW05031

Date: 01/30/2008

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JAN 31 2008

HAZ. WASTE SUPPORT SEC

SDG Narrative

Case 37088

SDG B4QT1

EPA Sample Numbers

EPA Sample Number	Aroclor Fraction	Dilution/ Reanalysis
B4QT1	Yes	No
B4QT2	Yes	Yes
B4QT3	Yes	Yes
B4QT4	Yes	Yes
B4QT5	Yes	Yes
B4QT6	Yes	Yes
B4QT7	Yes	Yes
B4QT8	Yes	Yes
B4QT9	Yes	Yes
B4QW0	Yes	Yes
B4QW1	Yes	Yes
B4QW2	Yes	Yes
B4QW3	Yes	Yes
B4QW3MS	Yes	No
B4QW3MSD	Yes	No
B4QW4	Yes	Yes
B4QW5	Yes	Yes
B4QW6	Yes	Yes
B4QW7	Yes	Yes
B4QW8	Yes	Yes
B4QW9	Yes	Yes
B4QX0	Yes	Yes

ColumnsAroclor #1 DB-XLB 30m x 0.32mm x 0.50um
Aroclor #2 DB-35MS 30m x 0.32mm x 0.25um

PEST/Aroclor Equation	$\text{Water sample concentration ug/L} = \frac{(A_x)(V_i)(DF)(GPC)}{(CF)(V_o)(V_i)}$ $\text{Soil sample concentration (ug/Kg)} = \frac{(A_x)(V_i)(DF)(GPC)}{(CF)(V_i)(W_s)(D)}$ <p>Where</p> <p>A_x is the response (peak area) of the compound to be measured.</p> <p>CF is the mean calibration factor from the initial calibration (area/ng).</p> <p>DF is the dilution factor.</p> <p>$GPC = V_{in}/V_{out}$: GPC factor.</p> <p>V_{in} is the volume of extract loaded onto GPC column.</p> <p>V_{out} is the volume of extract collected after GPC cleanup.</p> <p>V_t is volume of the concentrated extract in uL. (If no GPC cleanup is performed, then $V_t = 1000uL$. If GPC cleanup is performed, then $V_t = V_{out}$.)</p> <p>V_i is the volume of the extract injected in uL.</p> <p>V_o: Volume of water extracted in mL.</p> <p>W_s is the weight of sample extracted in g..</p> <p>$D = \frac{100 - \%Moisture}{100}$</p>
------------------------------	--

Sample Receiving

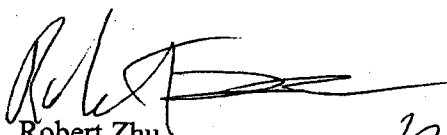
The cooler temperature associated with these samples was 4.7°C.

Aroclor Fraction

All samples in the SDG were extracted by the Automated Solvent Extractor (ASE). To ensure proper extraction, approximately 15 grams of sample were used for extraction. The final volume of the extract was brought to 5mL, instead of 10mL, so the CRQLs remain the same.

Due to analyst oversight, the LCS spiking solution was prepared at a concentration 10 times higher than what is specified in the SOW. The LCS recoveries, calculated based on the adjusted spiking concentration, are within the acceptance limits. Per instruction from the Region, the lab proceeded with the analysis of the samples.

I certify that this Sample Data Package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.


 Robert Zhu
 Technical Director

1/30/08



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JAN 31 2008

HAZ. WASTE SUPPORT SEC

Sample Delivery Group (SDG)
Cover SheetSDG Number: B4QX1Laboratory Name: Shealy EnvironmentalLaboratory Code: SHEALYContract No.: EPW05031Case No.: 37088Analysis Price: \$484.00SDG Turnaround: 21-DAYModified Analysis (if applicable): N/AModification Reference No.: N/A

EPA Sample Numbers in SDG (Listed in Numerical Order)

1) B4QX1	7) N/A	13) N/A	19) N/A
2) B4QX2	8) N/A	14) N/A	20) N/A
3) N/A	9) N/A	15) N/A	21) N/A
4) N/A	10) N/A	16) N/A	22) N/A
5) N/A	11) N/A	17) N/A	23) N/A
6) N/A	12) N/A	18) N/A	24) N/A

B4QX1

First Sample in SDG

B4QX2

Last Sample in SDG

01/10/08

First Sample Receipt Date

01/10/08

Last Sample Receipt Date

Note: There are a maximum of 20 **field** samples [excluding Performance Evaluation (PE) samples] in an SDG. Attach the TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature: S-A. ParvizDate: 01/21/08

**Sample Delivery Group (SDG)
Cover Sheet**

SDG Number: B4QT1

Laboratory Name: Shealy EnvironmentalLaboratory Code: SHEALYContract No.: EPW05031Case No.: 37088Analysis Price: \$440SDG Turnaround: 21-DAYModified Analysis (if applicable): NO

Modification Reference No.: N/A

EPA Sample Numbers in SDG (Listed in Numerical Order)

1) B4QT1	7) B4QT7	13) B4QW3	19) B4QW9
2) B4QT2	8) B4QT8	14) B4QW4	20) B4QX0
3) B4QT3	9) B4QT9	15) B4QW5	21) N/A
4) B4QT4	10) B4QW0	16) B4QW6	22) N/A
5) B4QT5	11) B4QW1	17) B4QW7	23) N/A
6) B4QT6	12) B4QW2	18) B4QW8	24) N/A

B4QT1

First Sample in SDG

B4QX0

Last Sample in SDG

01/10/08

First Sample Receipt Date

01/10/08

Last Sample Receipt Date

Note: There are a maximum of 20 **field** samples [excluding Performance Evaluation (PE) samples] in an SDG. Attach the TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature: *Jullu Mananighe*Date: 01/11/08

Robert Zhu

From: "Von Moll, Kristin" <kvonmoll@fedcsc.com>
To: "Dr. Zhu" <rzhu@shealylab.com>; "Saroj" <sparikh@shealylab.com>; "Shirani Wickramasinghe" <swickramasinghe@shealylab.com>
Cc: "Adly Michael" <Michael.Adly@epamail.epa.gov>; "Jennifer Ferranda" <feranda.jennifer@epa.gov>
Sent: Friday, January 25, 2008 1:04 PM
Subject: Region 02 | Case 37088 | Lab SHEALY | Issue Laboratory problems | FINAL

Dr. Zhu,

Summary Start

Issue: Due to analyst oversight, the LCS spiking solution was prepared at a concentration of 10 times higher than what is specified in the SOW. The affected samples are B4QT1 though B4QT9, B4QW0 though B4QW9 and B4QX0 though B4QX2. The LCS recoveries, calculated based on the adjusted spiking concentration, are within acceptable limits.
 Resolution: Per Region 2, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of the samples.

Summary End

Please let me know if you have any other questions.
 Thanks,

Kristin Von Moll
 Environmental Coordinator
kvonmoll@fedcsc.com
 Computer Sciences Corporation
 1-703-818-4235

 This is a PRIVATE message. If you are not the intended recipient, please delete without copying and kindly advise us by e-mail of the mistake in delivery. NOTE: Regardless of content, this e-mail shall not operate to bind CSC to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of e-mail for such purpose.

-----Original Message-----

From: Michael.Adly@epamail.epa.gov [mailto:Michael.Adly@epamail.epa.gov]

Sent: Friday, January 25, 2008 12:51 PM

To: Von Moll, Kristin

Cc: feranda.jennifer@epa.gov

Subject: Re: NEW ISSUE #8 | Case 37088 | Lab SHEALY | Issue Laboratory problems

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1/30/2008

Kristin,

Please advise the lab to note the issue in the SDG narrative, and proceed with the analysis of the rest of the samples.

Thanks.

Adly A. Michael
Region 2 - HWSB - HWSS
Phone: (732) 906-6161
Fax: (732) 321-6622

"Von Moll,
Kristin"
<kvonmoll@fedcsc.com>
01/25/2008 09:07 AM

To
Adly Michael/R2/USEPA/US@EPA,
Jennifer Feranda/R2/USEPA/US@EPA
cc

Subject
NEW ISSUE #8 | Case 37088 | Lab
SHEALY | Issue Laboratory
problems

Adly,

SHEALY is reporting the following issue regarding Case 37088.

Issue: Due to analyst oversight, the LCS spiking solution was prepared at a concentration of 10 times higher than what is specified in the SOW. The affected samples are B4QT1 though B4QT9, B4QW0 though B4QW9 and B4QX0 though B4QX2. The LCS recoveries, calculated based on the adjusted spiking concentration, are within acceptable limits. These samples were collected and shipped on 1/9 and received at the laboratory on 1/10.

Please advise on how the laboratory should proceed.
Thanks,

Kristin Von Moll
Environmental Coordinator
kvonmoll@fedcsc.com
Computer Sciences Corporation
1-703-818-4235

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1/30/2008

bind CSC to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of e-mail for such purpose.

From: Robert Zhu [mailto:rzhu@shealylab.com]
Sent: Friday, January 25, 2008 9:00 AM
To: Von Moll, Kristin
Cc: Saroj Parikh
Subject: Re: Case 37088 Aroclor issue

Kristin:

These samples were collected and shipped on 1/9/08 and received on 1/10/08.

=====

Robert Zhu, Ph.D
Technical Director
Shealy Environmental Services, Inc.
Phone: 803-791-9700 Ext. 110
803-227-3152 direct dial
Fax: 803-791-9111
www.shealylab.com
rzhu@shealylab.com

=====

----- Original Message -----

From: Von Moll, Kristin
To: Robert Zhu
Sent: Friday, January 25, 2008 9:00 AM
Subject: RE: Case 37088 Aroclor issue

Dr. Zhu,

Can you please clarify when these samples were received/collected? Are these the samples that were shipped on the 9th?

Kristin Von Moll
Environmental Coordinator
kvonmoll@fedcsc.com
Computer Sciences Corporation
1-703-818-4235

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1/30/2008

From: Robert Zhu [mailto:rzhu@shealylab.com]
Sent: Thursday, January 24, 2008 4:48 PM
To: Von Moll, Kristin
Subject: Fw: Case 37088 Aroclor issue
Importance: High

Kristin:

Correction to my previous email. These samples were collected on 1/9/08.

=====

Robert Zhu, Ph.D
Technical Director
Shealy Environmental Services, Inc.
Phone: 803-791-9700 Ext. 110
803-227-3152 direct dial
Fax: 803-791-9111
www.shealylab.com
rzhu@shealylab.com

=====

----- Original Message -----

From: Robert Zhu
To: Kristin Von Moll
Cc: Kerry Hinshaw ; Saroj Parikh ; Shirani Wickramasinghe
Sent: Thursday, January 24, 2008 4:15 PM
Subject: Case 37088 Aroclor issue

Kristin:

Due to analyst oversight, the LCS spiking solution was prepared at a concentration 10 times higher than what is specified in the SOW. The affected samples are B4QT1 thru B4QT9, B4QW0 thru B4QW9, B4QX0 thru B4QX2. The LCS recoveries, calculated based on the adjusted spiking concentration, are within acceptance limits. These samples were received on 1/10/08 and today is the 14th day from sample collection. Please let me know how to proceed. Thanks.

=====

Robert Zhu, Ph.D
Technical Director
Shealy Environmental Services, Inc.
Phone: 803-791-9700 Ext. 110
803-227-3152 direct dial
Fax: 803-791-9111
www.shealylab.com
rzhu@shealylab.com

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1/30/2008

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